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CULTURAL RESOURCES OF THE OHIO RIVER FLOODPLAIN IN ILLINOIS,

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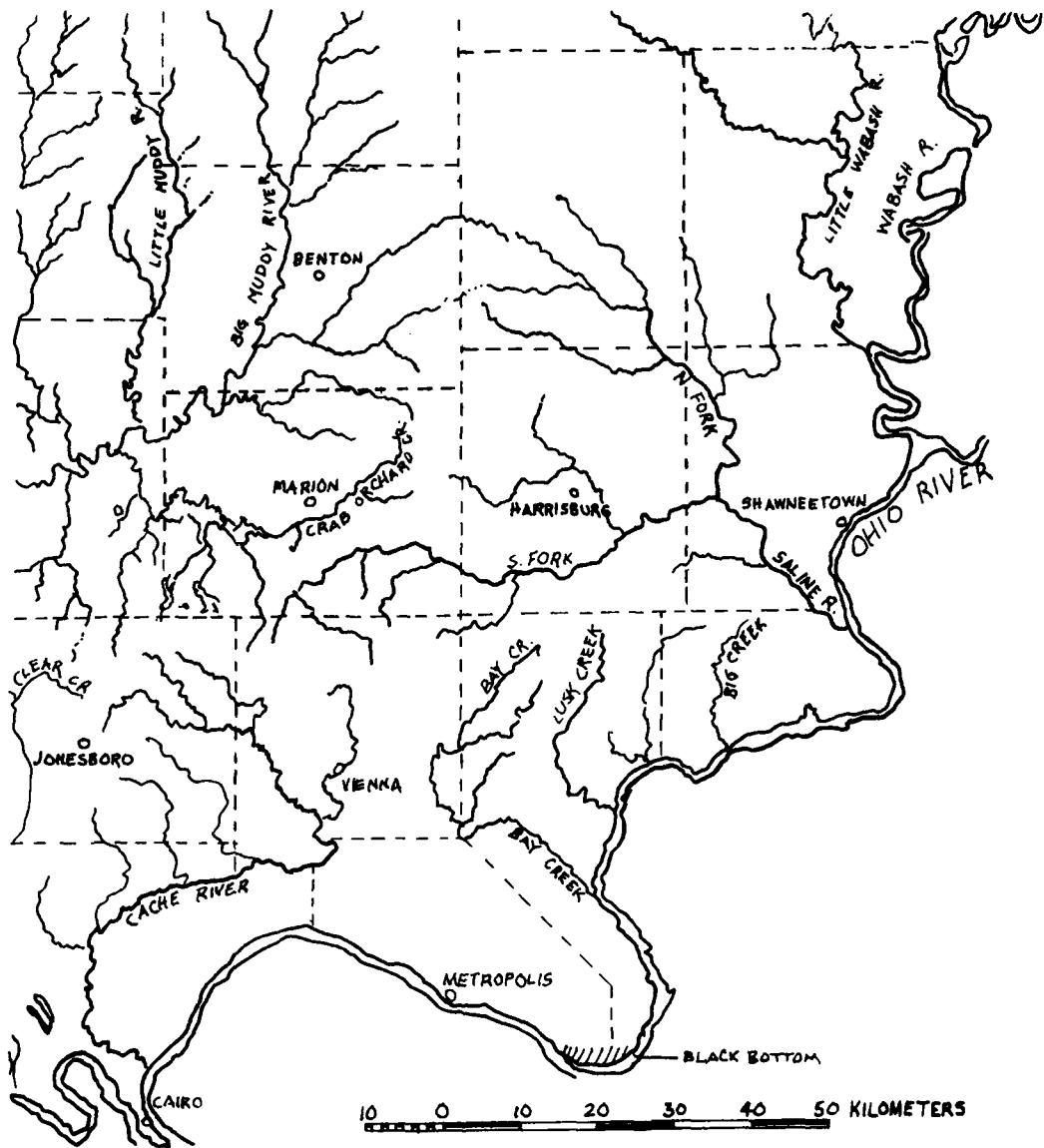
ERRATA

Cultural Resources of the Ohio River Floodplain in Illinois

- p. 24 - second paragraph, "the 2SD2-06 site" should read 25D2-06
- p. 72 - 26 VI 75-6 through 26 VI 75-14 (last nine entries) should read 27 VI 75-5, 27 VI 75-6, etc.
- p. 73 - 26 VI 75-15 through 26 VI 75-21 (first 7 entries) should read 27 VI 75-15, 27 VI 75-16, etc.
- p. 74 - 29 VI 75-1 through 29 VI 75-9 (last nine entries) should read 29 VI 73-1, 29 VI 73-2, etc.
- p. 75 - 29 VI 75-10 through 29 VI 75-B (first eight entries) should read 29 VI 73-10, 29 VI 73-11, etc.
- 27 VI 75-12 through 26 VI 75-14 should read 27 VI 73-12, 13, 14
 - 23 VI 75-1 through 26 VI 75-7 (last nine entries) should read 23 VI 72-1, 23 VI 72-2, etc.
- p. 76 - 26 VI 73-8, 26 VI 73-9 should read 26 VI 72-8, 26 VI 72-9
- p. 77 - 27 VI 72-19 should read 27 VI 73-19
- 28 VI 72-21 should read 27 VI 73-21
- p. 78 - 23 VI 73-6 should read 25 VI 73-6
- 23 VI 73-8 should read 25 VI 73-8
 - 10 VI 69 should read 10 V 69
 - 26 VI 72-3 should read 26 VI 73-3
 - 22 VI 72-7 should be deleted
- p. 79 - 24C4-02 should read 25C4-02, 24C4-06 should read 25C4-06
- p. 80 - 24C4-54 should read 25C4-54, 24C4-04 should read 25-C4-04
- p. 98 - 21 VI 73-T1 should read 23 VI 71-T1
- p. 100 - 24C4-48 (repeated 5 times) should read 25C4-48
- 15 VI 75-3 through 15 VI 75-7 should read 15 VI 71-3 through 7

Errata - 2

- p. 101 - 2404-38 should read 2504-38
- BBMx-187 should read BBMx-189
- 29 VI 72-3 should read 29 IV 72-3
- 29 VI 72-5 should read 29 IV 72-5



Frontispiece. Southern Illinois and the lower Ohio Valley

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ARCHAEOLOGICAL RESOURCES OF THE OHIO RIVER VALLEY IN ILLINOIS

Study Methods

The archaeological cultural resources of the Illinois portion of the Ohio Valley were determined by examination of site file data from three sources. The major site file record for the area is that of the Illinois Archaeological Survey, Inc. (IAS). Duplicates of this file were located at the Southern Illinois University Museum at Carbondale, Illinois. The site files of the Southern Illinois University Museum (SIUM) contain cross-listing of much of the IAS file and some additional site location information. The third site file is located in the Southern Illinois University Department of Anthropology (SIUDA) and consists of recent survey data from the Black Bottom locality of the Ohio River (river miles 910-937) which have not yet been reported to the Illinois Archaeological Survey.

Access to the Illinois Archaeological Survey site files is restricted, and site locations are therefore given by five river-mile sections as approved by the IAS. Sites were recorded on maps; and site density was determined in terms of cultural affiliation, elevation, soil type, meters from river bank, and vegetation cover as reconstructed from soils and Northwest Territory survey data. Condition of the site, size of site, and depth were recorded where such information was available. In addition, National Register status and location of site records are also given in the site listings (Appendix A).

There are a number of different site numbering systems employed in project area. From 1934 to the middle 1940's, a numbering system employed by the University of Chicago designated sites by a county code, a superscript letter and number (e.g., Mx^V-1 is a village site in Massac County). All of the sites recorded in the University of Chicago survey work have been renumbered in the Illinois Archaeological Survey files. Thus University of Chicago (UC) sites Mx^V-1 to 22 were designated by the IAS as Mx-1 (the Kincaid Site). The same site area is 25D3-3 in the SIU University Museum records. The University Museum system is based on United States Geological Survey 15 minute quadrangle sheets. A few sites listed in the Southern Illinois University Museum files have not yet been assigned IAS numbers.

The survey of the Southern Illinois University Department of Anthropology Field School in Archaeology has located the bulk of the

sites in the study area. This survey area is confined to the "Black Bottom" area adjacent to the Tennessee and Cumberland confluences with the Ohio River and to the mouth of Bay Creek. Site numbers used by the SIU Field School consist of a two-part map check number. This consists of the date of survey, expressed as the numerical day, the month in Roman numerals, and the last two digits of the year of survey, followed by a sequential map check number (e.g., 29 VI 75-3 is the third site discovered on 29 June 1975). Field numbers of the SIU Field School were also assigned for many of the sites for reference purposes. Thus BB Mx-145 represents the 45th site discovered in Massac County by the Black Bottom survey. Both numbers are included in the accompanying table (Appendix A).

Publications of the University of Chicago generally use the University of Chicago site numbers, those of the Southern Illinois University Museum most often use SIUM numbers, and publications of the data recorded by the Southern Illinois University Field School in Archaeology refer to IAS numbers where possible and otherwise refer to SIUDA numbers.

Universal Transverse Mercator grid numbers are supplied in groups for each sector of five river miles. A military grid reference for any 1,000 meter square which occurs entirely or partly within a kilometer of the Ohio River bank is given. The military reference grid zone for the entire project area is 16S; and 100,000 meter squares include DS, CS, and DR. The 1,000 meter square is listed after the 100,000 meter square designation as a four-digit number (Department of the Army Technical Bulletin TM 5-241-1, 1967). Thus the military grid reference 16SDS 0884 refers to a square kilometer 408,000 meters east and 4,184,000 meters north in grid zone 16S and located in 100,000 meter square DS.

Description of the Study Area in Illinois

The study area in Illinois includes portions of two major physiographic provinces: the Interior Low Plateaus Province and the Gulf Coastal Plain Province, (Leighton, Ekblaw, and Hornberg 1948). The Shawnee Hills section of the Interior Low Plateaus Province extends from the mouth of the Wabash River to Bay Creek (river miles 848-908). There are two sections of the Gulf Coastal Plain Province in the project area. The Mississippi Plateau section of this province extends from Bay Creek to the mouth of the Tennessee River (river miles 909-934), and the Mississippi Embayment section of the same province extends from the Tennessee River to the mouth of the Ohio at the Mississippi River (river miles 935-981).

Geologically, the Interior Low Plateaus Province in the study area consists of loess-covered hills underlain by Mississippian and Pennsylvanian system strata of varied lithology. These strata outcrop in the more northern portions of the area, forming a cuesta near the

Shawneetown Hills which stretches westward across southern Illinois. These deposits are fairly resistant, and the Ohio River has cut a narrow flood plain in this section. The more southerly Gulf Coastal Plain Province is mainly unconsolidated late Cretaceous and early Tertiary sediment which overlays the Pennsylvanian and Mississippian strata at the southern tip of Illinois. These Cretaceous and Tertiary sediments are in turn overlain by Pleistocene deposits including sands and gravels from glacial outwash. The topography of the Gulf Coastal Plain is mostly of low relief and is less resistant to erosion so that flood plains in this section are broader, though still narrow in comparison to the Mississippi Valley.

Climate in the area has been classed variously as Humid Subtropical or Humid Continental (Strahler 1967). Summers are warm and humid, winters cool. The mean annual temperature varies from 13.8 degrees to 14.4 degrees Celsius (57-58 degrees Fahrenheit), from the northern to the southern portion of the area (Hall 1940). Precipitation is fairly evenly distributed throughout the year. The mean annual precipitation varies between 102 and 114 centimeters (40-45 inches). The length of the growing season varies from 90-120 days.

Soils that have developed under rich mesophytic forest, known as melanized forest soils, find their northwestern limit in the study area. However, Western Mesophytic Forest is the predominant forest type of the study area and is a transition forest type between the Mixed Mesophytic areas to the east and south and the Oak-Hickory Forest further to the west and south (Braun 1967).

Upland and terrace vegetation of the Gulf Coastal Plain Province in the study area differs somewhat from that of the Interior Low Plateaus Province, though lowland vegetation types are the same for the two areas (figures 1 and 2). Due largely to soil and drainage conditions and to the lack of deeper sheltering ravines, vegetation in the Gulf Coastal Plain has a more xeric aspect; and timber is generally smaller.

Upland Vegetation Types

A Post Oak Flats or wet flats community, is found on terraces and flat uplands of the Gulf Coastal Plain. Post oak (Quercus stellata) is the dominant of this community, often accompanied by blackjack oak (Quercus marilandica), black oak (Quercus velutina), shingle oak (Quercus imbricaria), and various hickories, particularly the more xeric species such as black hickory (Carya texana). Though post oak and blackjack oak are found most often on xeric ledges and bluff tops in the uplands of the Interior Low Plateaus Province, soil and water conditions in the Gulf Coastal Plain Province are such that soil is alternately saturated and very dry (Engelmann 1883, 1866a, 1866b); and these conditions are tolerated by post oak. Post Oak Flats often contain pockets where water does collect for longer periods and which

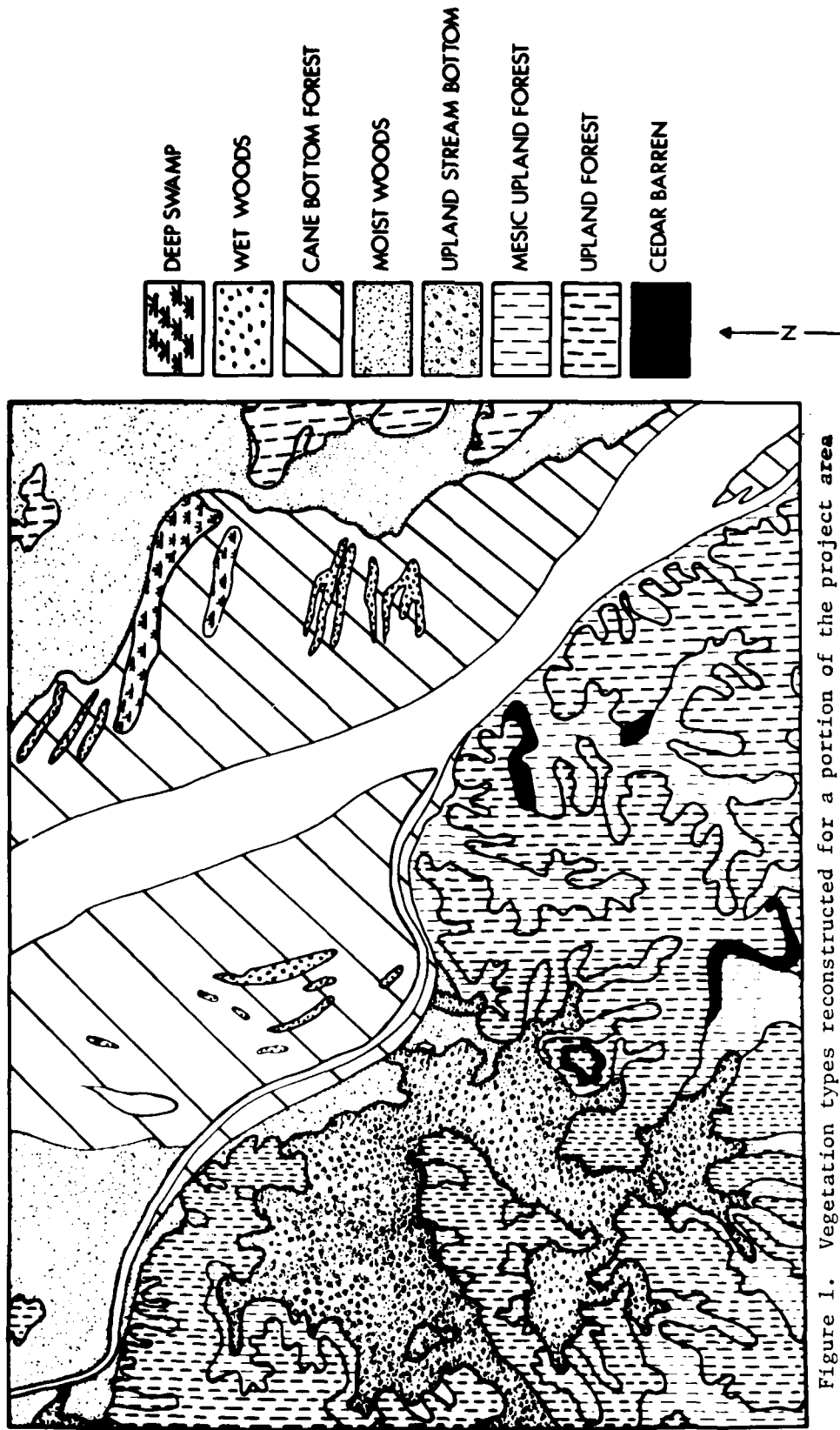


Figure 1. Vegetation types reconstructed for a portion of the project area within the Interior Low Plateaus physiographic province.

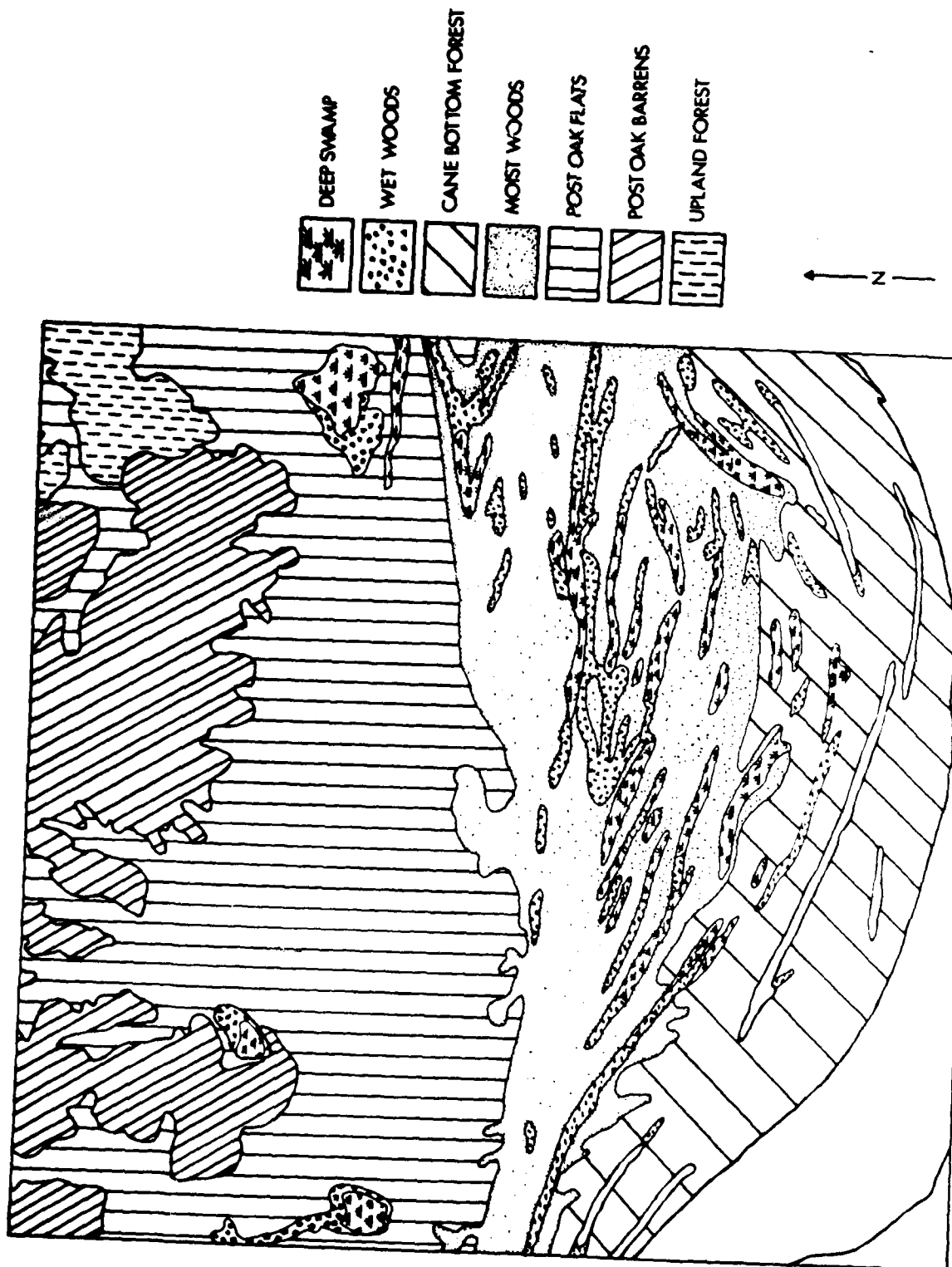


Figure 2. Vegetation types reconstructed for a portion of the project area within the Gulf Coastal Plain physiographic province.

support stands of pin oak (Quercus palustris), elm (Ulmus), ash (Fraxinus), and other species.

Portions of the low hills of the Gulf Coastal Plain Province support a vegetation type known as Post Oak Barrens (Butler 1972). While these areas have largely returned to a variant of upland or oak-hickory forest under the influence of the plow, records of the General Land Office Survey (U. S. Government Land Surveys n.d.) show conclusively that these areas, particularly in Pope County south of Bay Creek, were originally covered with a prairie-like vegetation, interspersed with post oak, blackjack oak, and hickories, in varying density. Surveyors also noted brushy areas in some places.

In the Interior Low Plateaus Province, Post Oak Flats and Post Oak Barrens do not generally occur. The uplands of this section are characterized mainly by three forest types called here Upland Forest, Mesic Upland Forest, and Cedar Barrens.¹ Each of these types may occur in small pockets in the Gulf Coastal Plain but not in quantity.

The Upland Forest vegetation type is the plant community occurring mainly on ridgetops and higher slopes in the Shawnee Hills Section of the Interior Low Plateaus Province. Dominants in this habitat are mostly white oak (Quercus alba) and black oak (Quercus velutina), with pockets of post oak and blackjack oak where soil is thin or exposure hazardous. Stands of various hickories (Carya) are interspersed. Smaller trees might include dogwood (Cornus spp.) and redbud (Cercis canadensis). Understory species include farkleberry (Vaccinium arboreum) and shadbush (Amelanchier arborea), or fragrant sumac (Rhus aromatica) in dryer areas or Hercules club (Aralia spinosa) and cat-briar (Smilax bona-nox) elsewhere.

Moving down the steep ravine slopes, there is a gradual transition to the most mesic and protected conditions of the ravine bottom; and this lower slope and moist ravine environment harbors a plant community here called Mesic Upland Forest. The most mesic species, dominating the protected north and east-facing slopes and protected bottoms, are sugar maple (Acer saccharum) and beech (Fagus grandifolia), often accompanied by tulip tree (Liriodendron tulipifera) and bitter-nut hickory (Carya cordiformis). Where protection is less due to factors of slope angle or to south and west aspect, there is often no clear dominant but a mixture of red oak (Quercus rubra), white oak, various hickories, American ash (Fraxinus americana), slippery elm (Ulmus rubra), and other trees. In the understory, poison ivy (Rhus radicans) is in evidence, accompanied by spicebush (Lindera benzoin).

¹Descriptions of vegetation types are based on Voigt and Mohlenbrock (1967), Mohlenbrock and Voigt (1959), and various master's degree theses on the botany of southern Illinois such as Cerretti (1975), Huston (1974), and others.

paw-paw (Asimina triloba), virginia creeper (Parthenocissus quinquefolia), blue beech (Carpinus caroliniana), and other plants.

Where sandstone ledges outcrop on slopes or blufftops, a Cedar Barrens community occurs. It is dominated by red cedar (Juniperus virginiana), accompanied by post oak and blackjack oak or black hickory where some soil has accumulated. Winged elm and farkleberry often compose the sparse understory.

Lowland Vegetation Types

While upland vegetation communities are determined by factors such as protection and soil depth, the lowland communities, which are the same throughout the study area, are determined more by water conditions. Lowland communities discussed here include Swamp, Wet Woods, Moist Woods, Cane Bottom Forest, and Upland Stream Bottom.

Swamp communities occur on bottomlands of the Ohio River where water stands year around due to annual flooding. Deeper swamps are dominated by bald cypress (Taxodium distichum) and water tupelo (Nyssa aquatica), with some swamp cottonwood (Populus heterophylla), water hickory (Carya aquatica), and pumpkin ash (Fraxinus tomentosa). Swamp rose (Rosa palustris) and buttonbush (Cephalanthus occidentalis) inhabit the understory. In shallower areas, or where the swamp is dry for some part of the year, water tupelo is replaced as a dominant by pumpkin ash; and virginia willow (Itea virginica) appears in the understory.

In low areas of the broader Ohio River bottomlands, or in depressed terrace flats where water stands for a month or more, a Wet Woods community occurs. It is dominated by pin oak, which often occurs in nearly pure stands. Associated trees here are often cherry-bark oak (Quercus falcata var. pagodaefolia), sweet gum (Liquidambar styraciflua), red maple (Acer rubrum), southern red oak (Quercus shumardii), with elms and ashes. Poison ivy and trumpet creeper (Campsis radicans) occur in the understory.

In a few areas where the Ohio River annually overflows its banks spreading alluvium, the Cane Bottom Forest community is found. This community was characterized before modern agriculture by dense stands of cane (Arundinaria gigantea). Associated tree species are mainly the "soft-hardwoods" including sycamore (Platanus occidentalis), red maple, honey locust (Gleditsia triacanthos), box elder (Acer negundo), American elm (Ulmus americana), hickories, and sweet gum, with occasional black walnut (Juglans nigra), butternut (Juglans cinerea), and pecan (Carya illinoensis) on better drained portions of ridges. Hackberry (Celtis laevigata) frequently occurs in the understory. Soils of this community are given an annual "energy subsidy" by flooding and hence are the richest and most suitable

for agriculture of any in the study area. Proximity of such areas to swamps and Wet Woods resource areas and the general desirability of this zone as habitat for important plant and animal resources meant that it was heavily occupied in all prehistoric periods. The largest such locality in the study area is the "Black Bottom" area.

On the deep, alluvial, bottomland soils that are not annually renewed by flooding, a Moist Woods community occurs. Better drained ridges of this community resemble Mesic Upland Forest, with some beech and sugar maple, basswood (Tilia americana), red oak, sweet gum, white oak, bur oak (Quercus macrocarpa), yellow chestnut oak (Quercus muhlenbergii), bitternut hickory, and small-fruited hickory (Carya ovalis). The understory generally contains blue beech, paw-paw, dogwood, spicebush, virginia creeper, poison ivy, and some fern species. Smaller ridges would be similar without many beech, basswood, or ferns. In the swale areas, water tolerant trees such as cherrybark oak, sweet gum, pin oak, and swamp chestnut oak (Quercus michauxii), would be more frequent; and the mesic species such as beech, sugar maple, and basswood would again be absent.

In the floodplains of small streams, the transition from overflow bottom to mesic forest is made within a much shorter space than along the Ohio River bottoms. The plant community defined by this transition is here called Upland Stream Bottom. Stream-bank species include mostly black willow (Salix nigra), cottonwood (Populus deltoides), sycamore, honey locust, river birch (Betula nigra), or soft maple (Acer saccharinum). Otherwise, there is essentially a transition through most of the species mentioned in discussions of Cane Bottom Forest and Moist Woods to the Mesic Upland Forest type of the lower slopes.

Reconstruction of the Vegetation Zones

The early historic vegetation of the lower Ohio River Valley was reconstructed using several sources. A major source was Butler's (1972) reconstruction of the vegetation of the Black Bottom locality. Butler researched the field notes of the field surveyors of the General Land Office Survey, which was carried out in 1806, to discover the correspondence between surveyors' "witness trees" and "line trees" and soil types. This was in turn checked against modern botanical sources such as Mohlenbrock and Voigt's (1959) flora of southern Illinois and various reports of early investigators such as Henry Engelmann (1863, 1866a, 1866b) and Clarence Telford.

In adopting Butler's methods to expand the reconstruction to the entire Ohio River Valley, several techniques were used. To obtain boundary definitions sharp enough for classification of archaeological sites as to environmental zone, soil maps were consulted for Alexander and Pulaski counties (Parks and Fehrenbacher 1968), Pope, Hardin, and

Massac counties (Parks 1975), and Gallatin County (Wallace and Fehrenbacher 1969) to secure information on soil permeability and depth. As topography was determined to be a major determinant of vegetation zones in the upland areas of the Shawnee Hills (Cerretti 1975), aerial photographs of the study area were inspected with a stereo viewer so that factors of slope, drainage, and protection could be determined more accurately. Finally, the General Land Office Survey notes (U. S. Government Land Surveys n.d.) were consulted; and the witness trees, line trees, and comments on vegetation and topography were noted on maps. Using all these sources, vegetation boundaries were drawn and sites located in terms of environmental zones.

Tree-ring studies (Hawley 1941; Estes 1969) suggest that relatively little major climatic change has occurred since Late Prehistoric times. Although the accuracy of actual tree-ring dates in the area can be questioned, a general conclusion of relative climatic stability seems justified. However, the usefulness and accuracy of any extension of this vegetation reconstruction to earlier times is uncertain. In general, historic vegetation zones and settlement even for earlier times do seem to be consistent.

Results of the Reconstruction

Archaeological sites were related to vegetation zones on the basis of the reconstruction (see Table 1). Cane Bottom Forest showed the highest relationship with archaeological sites for all periods. The percentage of sites in Cane Bottom Forest is very high for Mississippian, Late Woodland, and Early and Middle Woodland period sites and much lower for Archaic period sites and sites of undefined period, though still high. The difference here may partly be due to disappearance by alluviation in this zone of Archaic sites. Sites of unknown period affiliation are probably mostly lithic sites, since ceramics is generally a good indicator of period. Hence many of these sites (coded NPA for no period assigned) may represent either Archaic sites or hunting camps during later periods, rather than actual long-term settlements. Cane Bottom Forest represents a very fertile, somewhat easily cleared zone -- often with adjacent sloughs and swamps which provide abundant resources. Waterfowl, fish, and nut resources are also readily available near this zone; and so it is no surprise that it was heavily occupied in most prehistoric periods. The relationship between Cane Bottom Forest and soil types such as Armiesburg silty clay loam (597) [sometimes called Allison silty clay loam (306) in earlier soil surveys] and Huntington silty clay loam (600) is fairly consistent.

By far the second highest percentage of archaeological sites in the study area for all periods falls within the Moist Woods environment. Probably more of the area within a kilometer of the Ohio river bank in Illinois consists of this environment than of Cane Bottom

Table 1. Sites on the Project Area by Period per Environmental Zone

	CBF	MW	MUF	POF	USB	WW	UF	POB	TOTAL
HI	100.00 (4)								1.03 (4)
MISS	77.24 (112)	19.31 (28)	1.38 (2)	1.38 (2)	0.69 (1)				37.18 (145)
LW	81.08 (30)	13.51 (5)	5.41 (2)						9.49 (37)
E/MW	74.19 (23)	22.58 (7)	3.23 (1)						7.95 (31)
A	47.73 (21)	36.36 (16)		13.64 (6)		2.27 (1)			11.28 (44)
NPA	44.18 (57)	43.41 (56)	4.64 (6)	2.33 (3)	2.33 (3)	0.78 (1)	1.55 (2)	0.78 (1)	33.07 (129)
TOTAL	63.33 (247)	28.72 (112)	2.82 (11)	2.82 (11)	0.77 (3)	0.77 (3)	0.51 (2)	0.26 (1)	100.00 (390)

HI = Historic Indian
 MISS = Mississippian
 LW = Cane Woodland
 E/MW = Early/Middle Woodland
 A = Archaic
 NPA = No Period Assigned

CBF = Cane Bottom Forest
 MW = Moist Woods
 MUF = Mesic Upland Forest
 POF = Post Oak Flats
 USB = Upland Stream Bottom
 WW = Wet Woods
 UF = Upland Forest
 POB = Post Oak Barrens

Forest, and so the lesser degree of usage of Moist Woods areas by prehistoric peoples was probably the result of choice rather than chance. Soil types generally associated with this environment include Hurst silt loam (693) and Emma silt loam (469), soils of higher bottomland areas along the Ohio river, and some low terrace soils.

Sites occurred in Mesic Upland Forest and Post Oak Flats environments with equal frequency. Most of the Mesic Upland Forest localities for which sites were recorded were not, however, ravine bottom topographically but occurred in a large, somewhat sheltered area of rich soils along the Ohio River in Hardin County. This locality is near to fluorspar and salt resources and was the only upland area which showed any extensive prehistoric usage in the survey. Alford silt loam (308) is a soil type often associated with this zone.

The number of sites in Post Oak Flats was particularly high for the Archaic period, yet this may reflect a large concentration of Archaic sites near an outcropping of a low-grade chert resource in Massac County. The two Mississippian sites in this zone are terrace rather than upland sites. Post Oak Flats is most often associated with Hosmer silt loam (214).

As for other zones, three sites occurred in Upland Stream Bottom; and it is expected that this figure might have been higher had large areas of upland been involved in the survey. Wet Woods environments accounted for three more sites, possibly due to seasonal occupancy or to change in the topography and environment itself, a fairly likely possibility in flooded areas where such environments occur. Though probably more of the study area consists of Upland Forest than any other zone, only two sites were recorded in this zone, reflecting, no doubt, the preferences of prehistoric peoples or the difficulties of archaeological reconnaissance in such areas if still wooded (as they often are). One site occurred in a Post Oak Barrens zone, though in a locality very near to river bottom resources.

In summary, then, archaeological sites of all periods can be expected to occur in very high density in annually inundated areas where there is some high ground or ridge and swale topography (Cane Bottom). Sites can also be expected in high density in adjacent bottomland areas, with some high ground, that are not annually inundated (Moist Woods). This is substantiated by the very intensive surveying that has been carried out in the Black Bottom locality (river miles 922-936) as well as in surveys of the remainder of the project area which have not been as intensive. It is possible that occurrence of sites in higher densities in other environmental zones may be dependent more upon local availability of resources near these sites (chert, fluorspar, etc.), upon prehistoric trade routes, upon general environmental diversity in a given locale, or on other factors, though survey of such areas is not at present adequate to fully substantiate this conclusion.

Quality and Limitations of the Data

The major site surveys in the vicinity of the project area have been carried out since 1934, although some sites such as Kincaid were reported earlier. For most of the project area, the method of survey apparently was a procedure of informant interview and spot-checking of "likely looking areas." Field notes and published accounts from most site location work in the area give little indication of the procedures employed. Moreover, there is usually no way to determine which areas were investigated that did not have archaeological remains present. The lack of such information, unfortunately, is characteristic of almost all survey carried out in the eastern United States during the period prior to the 1970's. Thus, as poor as the data are on actual site distribution in the project area, these data are generally comparable to those from other regions.

Historically, the lack of explicit information on survey methods and purposes is a reflection of what appears to have been an attitude that site location survey was primarily useful as a technique for discovering sites (preferably stratified) for excavation. The distributional and environmental interests of British prehistorians have only recently been shared by their American counterparts. Survey methods reflecting these interests in distribution and environment have developed only recently in the area.

The "Black Bottom" section of the project area which is adjacent to the confluences of the Tennessee and Cumberland rivers with the Ohio (river miles 922-936) has been surveyed intensively with the aim of defining settlement systems and their environmental concomitants. Portions of this area have been surveyed over a period of ten years by members of the Southern Illinois University Department of Anthropology. The portion of the Black Bottom area within a kilometer of the Ohio River bank thus contains very little area that has not been surveyed. Most of these unsurveyed areas are located in lower ground which is subject to annual flooding and in which the density of sites of all periods is normally not large. It is not surprising, then, that upwards of twice the number of sites reported for the rest of the project area were found in the Black Bottom area alone. Although the Black Bottom section was a very desirable habitation area during every period of prehistory, survey in this area shows that the density of sites in the remainder of the project area is much higher than is now reflected by survey data for these other areas.

Site definition used in the SIU Department of Anthropology (SIUDA) Black Bottom survey also differs from site definition in previous surveys. Any two adjacent areas of scatter of cultural materials separated by at least 5 to 10 meters of ground on which no material was found were given separate map check numbers by members of the survey. If closely located sites appear to be of the same period, they may be given a single survey number (see Study Methods section for discussion of numbering systems). This contrasts to earlier

surveys in which numerous areas of scatter have at times been given a single site number if in the same general area. The Black Bottom survey thus defines the site as a unit small enough to account for successive or sporadic relocations of habitation within a prehistoric period. Such a definition of the site unit also makes possible the identification of domicile clusters within a settlement neighborhood or of smaller clusters when domiciles are widely spaced. The identification of such settlement features as these is especially significant in the Mississippi Period, when occupation of ridges on annually inundated bottomland is extensive. It is likely that many sites discovered by earlier surveys contain two or more sites as defined by the Black Bottom survey.

A second survey was carried out by Mr. Walter Brieschke of the Southern Illinois University Museum in 1971 for the Historic Sites Survey. This survey covered much of the project area. The method used in Brieschke's survey was to contact landowners to discover where artifacts or burials had been found (Walter Brieschke, personal communication). In many cases, sites were not visited due to vegetation or crop conditions. Local collections were catalogued and photographed, and sites were located on topographic maps according to the verbal descriptions of land owners supplemented by field checks.

The section of the project area from Brookport to Metropolis, Illinois (river miles 938-942), is the only area aside from those covered by the Black Bottom survey which has undergone intensive "on the ground" survey. This was accomplished as a part of the Southern Illinois University Museum Fort Massac Project (Lathrop and Grubisich 1970) and consists mainly of areas within Fort Massac State Park and its proposed extension eastwards towards Brookport. Areas within the park were difficult to survey as 75 to 80 per cent was covered by dense forest. Areas within the proposed eastward extension of the park were more amenable to survey since three-fifths of the land was cultivated. The remaining two-fifths contained forest, old fields, or pasture with dense grass and weeds. The Fort Massac survey project also depended on site information from area residents. A total of twenty-one sites was located by the survey, three of which had been previously recorded. Most of these were located within the project area.

Still other sites were located in surveys by the Southern Illinois University Museum in the 1950's by Howard Winters and others. Sites discovered in these surveys were few, and accounts of survey methods have not been published. Other sites in the project area have been located as a result of reports from collectors and landowners. Thus only the Black Bottom area (river miles 922-936), a section near Bay Creek (river mile group 909-912), an area in between these two (river mile group 913-917), and the locality near Fort Massac State Park (river mile group 938-942) have been surveyed in any sort of intensive way.

The earliest extensive survey in the project area was conducted by the Metropolis Expedition of the University of Chicago in the 1930's and 1940's. This survey concentrated on cultivated fields and made spot checks in widely dispersed areas in Pope and Massac counties, Illinois. Small sites were generally not recorded (Cole et al. 1951).

Data concerning site size, depth, cultures represented, and sometimes periods represented are limited by the survey file information. Size of site, for example, was not often recorded. If the site was located but not visited, information on periods, cultures, and site sizes was usually absent. Information on depth of cultural deposits is also rarely available since few sites have been excavated and even fewer tested.

Surface collections were made at most sites, however; and this provides a basis for the determination of site type, periods, and cultures. For example, the criterion for a village site for the Mississippian period was the occurrence of daub, indicating the probable presence of a dwelling. Smaller sites with daub and/or hoe chips present were usually labelled as "farmsteads." In cases where such artifacts were not present, no designation as to type was made. Identification of culture period was made on the basis of diagnostic artifacts as described in the section on culture periods.

Assignment of culture for a particular site of known period was often problematic. For some periods (notably Late Woodland and Mississippian), diagnosis as to culture is difficult on the basis of surface collections alone because of similarities between designated cultures and phases. Furthermore, cultural boundaries cut across the study area during most periods. Due to the nature of the cultural units themselves, as well as the limitations of data from surface collecting, designation of sites in these areas as belonging to a specific culture was often not feasible. (For further discussion of cultural boundary problems in the study area, see the section on cultures and periods.)

Prehistoric Periods and Cultures

Prehistoric cultural periods in the lower Ohio Valley and their approximate dates are as follows:

1. Paleoindian -- 10,000-7000 B.C.
2. Archaic -- 7000-500 B.C.
3. Early/Middle Woodland -- 500 B.C.-A.D. 600
4. Late Woodland -- A.D. 600-900
5. Late Prehistoric (Mississippian) -- A.D. 900-ca. 1620

The Paleoindian Period

The three millenia of the Paleoindian period were times of

subtle ecological change in the woodlands environment of the eastern United States. The effects of the recession of the Wisconsin glaciation had probably all taken place sometime prior to 7000 B.C. A stable deciduous forest had developed; and big game species such as mammoth and large bison species, which were hunted by Paleoindian peoples in earlier times, had become extinct. These may have been important factors in the development of Paleoindian cultures.

Evidence from the few habitation sites known and the distribution of Clovis type projectile points are consistent with the view that the usual Paleoindian form of social organization was that of small groups of people moving about an area in response to local availability of resources. Population density during these times was probably very low.

The Paleoindian peoples of the lower Ohio Valley were very similar to their counterparts in other areas of northern America, at least in terms of lithic technology. Finds of Clovis type projectile points are not uncommon in southern Illinois, although actual kill sites or habitation areas have not been identified in the lower Ohio Valley. Such sites may have been buried by alluviation. Because of the lack of good evidence, it is difficult to determine the character of the Paleoindian use of the woodlands environment near the lower Ohio. It is also true that the Paleoindian period is generally the least known prehistoric period in eastern North America.

There are presently no named phases or cultures for this period in the Illinois portion of the Ohio Valley. However, the projectile points of the period are of the type known as Clovis (Wormington 1957:263); and it is common to speak of a "Clovis Culture."

Towards the end of the Paleoindian period, a cultural complex known as Dalton appeared in many areas of eastern North America (Goodyear 1974). The Dalton complex is similar to its Clovis predecessor in some ways and seems to have been a development from Clovis in response to changing environments. Dalton components show a broad range of utilization of resources and a particular emphasis on the hunting of deer. It is probable that a wide variety of plant foods were used as well. The Dalton culture is generally regarded as belonging to the transition time between the Paleoindian and Archaic periods. Finds of Dalton type projectile points (Bell 1958:18-19) are fairly common in Illinois. For other areas, various late Paleoindian and Early Archaic sites have been reported (Luchterhand 1970).

Diagnostic Paleoindian projectile points:

- Clovis points (Wormington 1957:263)
- Meserve points (Wormington 1957:265)
- Dalton points (Bell 1958:18-19)

The Archaic Period

One of the outstanding characteristics of the Archaic period is that Archaic people skillfully adapted to a broad range of local conditions. There are often considerable differences in Archaic period societies from one locality and region to another (see, for example, Muller, in press c; Caldwell 1958). In most cases, however, the basic strategies employed by Archaic peoples appear to have been similar despite the differences in technique and custom required in particular locations. The most common pattern of life in this period appears to have been seasonal movement from one part of the home range of a band to another depending upon the fruits, nuts, fish, shellfish, and game available. There is also evidence of a varied settlement strategy during Archaic times. Winters (1969), for example, has hypothesized that Archaic settlement sites on the nearby Wabash Valley are of several types including winter settlement sites, with semi-permanent dwellings and burial grounds; large spring and fall transient camps; summer hunting base camps; and smaller hunting camps and bivouacs occupied during any given season. This kind of settlement system is fairly typical of modern hunting and gathering bands. Though evidence of settlement during the preceding Paleoindian period is scant, this pattern of settlement or one similar may have occurred in Paleoindian times as well.

A wide range of plant and animal species were used as food by Archaic peoples. Seasonal movement to make use of several resource zones and to take advantage of local variability of resources was probably a very important factor in survival. The nut-bearing trees which are abundant in the lower Ohio River valley, for example, are known to undergo cycles of productivity from area to area. Animal resources are also subject to population cycles due to the pressure of both animal and human predation. In some Archaic sites, domesticated squash is present (Chomko and Crawford 1977; Yarnell 1976:269); but the importance of such plants to the economy is undetermined.

As population increased through Archaic times, there was a corresponding decrease in the mobility of Archaic peoples due to increasing pressure from neighboring groups and to more competition with them for resources. Under these circumstances, there was also pressure to increase the efficiency of exchange and distribution of goods and to improve storage systems so that the produce of one season could be carried over to the next season. In general, there was probably greater pressure to raise productivity. Such changes, but particularly the increasing need to improve the efficiency of distribution and exchange of goods from one resource zone to another, may have led to a greater need for the organization and administration of activities. The higher quality and greater quantities of grave goods associated with a few Late Archaic burials are evidence that there were increasing differences of status in some Archaic societies (Binford 1962:223-24). It is probably not the case, however, that these more highly politicized Late Archaic societies were hereditary chiefdoms in Elman R. Service's (1975) widely used classification

of political types. A more likely interpretation is that such societies were of the "Big Man" type, in which leadership arises to meet local needs, usually in terms of the leader's ability to negotiate resources for the benefit of his community (cf. Braun 1977; Sahlins 1970).

Long-distance trade in exotic items began to occur in the later Archaic, possibly in connection with trade of food resources, increased population density, and restriction of group movement. Objects such as native copper from Michigan and Georgia and marine shell from the Gulf and Atlantic coasts began to turn up in small quantities far from their source areas.

Increased need for storage in containers more durable than baskets and the diffusion of ceramic techniques led some Archaic peoples to the south to adopt pottery making. Since the earliest pottery-making cultures of the southern Atlantic coast and Mississippi River delta region were familiar with the making of vessels of durable steatite, it is probable that the adoption of pottery reflects the need for suitable containers more than anything else. The earliest pottery was fiber tempered and mostly undecorated (e.g., Waring, 1968). Later wares were sand or grit tempered and showed the beginnings of a tradition of ceramic decoration which lasted throughout North American prehistory. Despite these developments, however, pottery was probably not introduced into the lower Ohio Valley before Middle Woodland times (see discussion on Early Woodland period).

Archaic sites occur in fairly large numbers in the project area. Their location is more often on terraces than on bottomlands, yet this may reflect an obscuration of some bottomland sites due to alluviation or destruction due to change in stream courses. However, only a few systematic studies of Archaic sites have been undertaken in the project area (MacNeish 1948; Cole et al. 1951).

Faulkner is the only phase defined for the Archaic in the Illinois portion of the Ohio Valley (MacNeish 1948; Cole et al. 1951). It appears to date to the Middle Archaic. Other complexes during this very long period of time are defined for adjacent areas, however; and it seems likely that Archaic chronology can be considerably refined in the project area. While the use of the term "Faulkner" is justified for materials that are truly similar to those of the Faulkner site, there appears to have been a somewhat less acceptable trend toward using the term as a synonym for "Archaic." The Faulkner phase material tends to be more similar to that of cultures southeast of the lower Ohio Valley, particularly those of the Tennessee and Cumberland river valleys (Winters 1963). Close similarity of Faulkner to the Early Woodland Black Sand phase of the Illinois River valley to the north has, however, been noted (Cole et al. 1951). In most periods, cultural phases of the lower Ohio River valley, except those near the Wabash River mouth, are generally more similar to cultures south and east than to those of the Mississippi River floodplain or the northern side of the Shawnee Hills cuesta.

Diagnostic artifacts for the Archaic period are usually projectile points and knives of various types. It should be emphasized, however, that the mere finding of a particular type in an area does not justify a conclusion that a given cultural complex defined elsewhere is present in the area. Archaic projectile points are generally large in size and have been classified in a bewildering array of named types. For the lower Ohio in Illinois, only the Faulkner projectile point types (Cole et al. 1951:214-17) have been reasonably well connected with actual cultural contexts. However, many different kinds of Archaic projectile points have been found in the Ohio Valley and can be used with caution to identify Archaic sites. Among the most important of these in the Illinois part of the project area are the Karnak and Thebes (Winters 1967:23-25, 19). In addition to projectile points, other diagnostic artifacts include three-quarter grooved axes and so-called "bannerstones" (Fowler 1957b).

Diagnostic Archaic projectile points:

Karnak stemmed (Winters 1967:23-25)
 Thebes point (Winters 1967:19)
 Faulkner side notched (Winters 1967:23)

The Early Woodland Period

Earlier theories of change in society and culture in the eastern United States once stressed the role of diffusion of an agricultural complex of maize, beans, and squash and of moundbuilding from a Mesoamerican center in Early or Middle Woodland times (e.g., Griffin 1967:175). However, maize simply does not seem to have been an exceptionally important food item at this early period. While domesticated squash appears to have been used well back into the Archaic period, maize did not begin to show up in small quantities until roughly 300 B.C. (Yarnell 1967); and beans have not been definitely identified prior to the Late Prehistoric (Yarnell 1976:272). It should be stressed that these highly productive crops are of Mesoamerican origin and that it may have taken a fairly long period of time for the development of varieties hardy enough to grow well in eastern North America.

Faced with the lack of evidence for intensive growing of Mesoamerican crops, some archaeologists have suggested that native crops may have been domesticated in eastern North America in Archaic (Yarnell 1976:269), in Early or Middle Woodland times (Streuver 1964). The most likely candidates for such crops are sunflower (Helianthus), goosefoot (Chenopodium), and sumpweed (Iva) (Streuver, 1964; Yarnell, 1976:266-70). Even if these plants were not fully domesticated, their use at this time may have been a factor in increasing sedentarism.

The Early Woodland period marks the spread of ceramic technology to most of eastern North America, if not to the project area. The occurrence of pottery has often been cited as a major marker for the

Early Woodland period, usually on the assumption that a major economic change was involved as well. However, some authors (e.g., Willey and Phillips 1958) have noted that Late Archaic and Early Woodland cultures which have ceramics differ very little from their immediate predecessors in other respects. Despite this, the term "formative" is sometimes used to refer to the possible shift to small-scale plant cultivation in the Early Woodland period. Even so, formative cultures occur in very few areas in Early Woodland times, most notably in Louisiana (Poverty Point) and in Ohio. The presence of ceramics, then, is in and of itself more indicative of restricted mobility and a need for durable containers than of cultivation.

The beginnings of a tradition of ceremonial earthwork and burial mound building can be seen in the Early Woodland period outside of the lower Ohio Valley. The Poverty Point and Adena cultures were the forerunners of this development. Archaeological evidence for this period shows a rapid development in some technologies related to social status which is probably indicative of a continuously growing need in many areas of eastern North America for the organization of the ceremonial, political, and economic activities of a larger local group in response to increased sedentarism, decreasing mobility, and increasing population density. The production of "ceremonial" objects of all kinds increased during this period, and this could be taken as evidence of greater organizational developments in the local group.

If the evidence for plant cultivation in the Early Woodland period is not entirely convincing, the evidence for more long-distance trade may provide a basis for alternative explanations of a slowly growing complexity in these societies. As has already been mentioned, better organization of social groups, greater differences of status within them, and more long-distance trade may also be partly the result of the importance of the distribution of food and other goods in a collecting economy (Ford 1974). Given a more sedentary way of life, the trade of commodities across ecological resource zones could have had adaptive value where the variability of yield for noncultivated natural resources is high from area to area (as in the case of nut-bearing trees and animal populations) (cf. Muller, in press c). The evidence for slightly more trade of exotic items over long distances in this period may thus indicate that there was also a more important trade in the produce of a collecting, and perhaps small-scale horticultural, economy.

Diagnostic traits of the Early Woodland period include thick limestone-tempered pottery which is usually fabric impressed or cord roughened with flat-bottomed vessels (Cole et al. 1951: 189-200). Reel-shaped gorgets, which first appear in the Late Archaic, occur with greater frequency in Early Woodland sites (Cole et al. 1951: 205) and often accompany burials.

The major Early to Middle Woodland complex in the central portion of the Ohio Valley in Illinois is the Baumer phase (Cole et al. 1951).

It is possible that some part of the Baumer phase may be Early Woodland in date. However, it seems likely that Baumer is predominantly Middle Woodland in time; and this complex is discussed more fully in the next section. If it is the case that Baumer is essentially Middle Woodland in time, it is possible that actual Early Woodland in the temporal sense is missing in the lower Ohio River valley. Recent, unpublished work by Southern Illinois University in the Black Bottom of the Ohio has revealed one nonceramic site dating to approximately 600 B.C., but virtually nothing is known about the nature of this occupation. Thus, it is possible that ceramic technology was not introduced into the area until Middle Woodland times even though the appearance of much of the Baumer pottery is close to that of Early Woodland pottery elsewhere in the central United States. To the north of the Ohio River, the Crab Orchard complex is very similar to Baumer (Maxwell 1951).

The Middle Woodland Period

The Middle Woodland period is marked by a dramatic increase in long-distance trade and by the spread of "formative" cultures to many areas of eastern North America. While Poverty Point and Adena were the only formative cultures in earlier periods, major formative cultures found in Middle Woodland times include Kansas City Hopewell in Missouri, Illinois Valley Hopewell, Trempeleau in Iowa and Wisconsin, Hopewell in Ohio and northern Kentucky, Point Peninsula in Pennsylvania and New York, Santa Rosa in southern Georgia, Swift Creek in northern Florida, Copena in northern Alabama, and Marksville in Louisiana, to name some major areas. Participation in networks of external trade become a major characteristic of Middle Woodland societies. Such networks have been called "interaction spheres," the most well-known being the "Hopewell Interaction Sphere" (Streuver 1964).

Although maize is known to have been present in Middle Woodland times in eastern North America, the evidence still suggests that cultivated plants still played a relatively small part in the diet (Ford 1974). The development of external trade networks and their counterparts, the local distributive networks, may have played an important economic role in these societies, however.

"Formative" culture, which spread widely during Middle Woodland times, is marked mainly by large, usually conical burial mounds and/or ceremonial earthworks (in Ohio mostly), as well as by exotic goods in quantity, most often found with burials in the mounds. Such goods were often traded over very long distances. They include: copper beads, pan-pipes, axes, or other implements; conch shell cups, some engraved; finely made stone animal or human effigy platform pipes; gorgets made from cut carnivore jaws; and hematite and red ocher (as in Fowler 1957a). As such items occur in lesser quantity in cemetery burials as compared with the fewer mound burials, there is good evidence of differences of social status for Middle Woodland.

In general, such higher social or political statuses were probably derived through social roles in local distributive networks or through roles in external trade networks (cf. Muller, in press c). The distribution of exotic materials throughout eastern North America at this time appears to find closer analogies with the nature of status and distribution in Melanesia rather than the more highly centralized and ranked societies in Polynesia. In other words, the possession of exotic goods and of status itself may have been more often achieved by Middle Woodland "leaders" than inherited through membership in chiefly lineages. This, of course, must remain a moot point until more effort is expended in the eastern United States on archaeology aimed at testing such hypotheses. In any case, there were differences between regions in terms of the degree of ranking for this period.

The Southeast of North America has been seen as rather less developed in Middle Woodland times in terms of social organization than the southern Northeast. Ironically, this may be a reflection of the greater carrying capacity of the southeastern environment. It may simply be that the southeastern swamps, river valleys, and woodlands were so rich in resources that a relatively high density of population was possible without the need for centralized political authority (Muller, in press c). When the volume of burial mounds is examined, it can be seen that the amount of labor involved in such construction is usually not greater than that which might be locally available as a result of reciprocal obligations to important persons or "Big Men" (Service 1975). In the Southeast, social statuses may have resulted more from external trade relations than from the local distribution system. Given increasing population pressure, requiring more efficient production and distribution systems as well as creating increasing need for maintenance of order, "Big Man" societies may well become "chiefdoms" characterized by increasing emphasis on inheritance of authority, economic redistribution, and centralization of power (Service 1975).

There is also an elaboration of decorative styles during the Middle Woodland period. Techniques in the decoration of pottery such as zoned stamping, rocker stamping, dentate stamping, punctuation, and incising make their appearance or are more frequently used during this period. Such techniques were infrequently used in the Illinois parts of the lower Ohio River valley, however.

Most of the Illinois Ohio valley locality was largely peripheral to the major development of Middle Woodland times. Sites of the Middle Woodland period seem to occur mainly in the Black Bottom locality across from the Tennessee and Cumberland river mouths and in the lower Saline and Wabash basins. The Rutherford Mound site (Fowler 1957) overlooks the Saline River from a bluff about 2.5 kilometers from the Ohio River bank. The site dates to about A.D. 465 and is clearly a Middle Woodland one, which has been informally tied to "Wabash Valley Hopewellian" or the Mann complex (Munson, Limp, and Barton 1977:86; Winters 1967:44 ff.). Very near the Wabash River mouth and also about 2.5 kilometers from the Ohio River is at least one mound group, most

likely of Middle Woodland time period. There is another Middle Woodland mound site on the Ohio, near the Mississippi River, also further than a kilometer from the river bank. In the remainder of the lower Ohio valley, Middle Woodland sites occur only as campsites or as village sites, such as the Baumer site, as far as is presently known.

As mentioned in the previous section, the major Early to Middle Woodland complex in the central portion of the Ohio Valley in Illinois is the Baumer phase, with thick fabric-impressed pottery with limestone temper (Cole et al. 1951:184-210). It is possible that some part of the Baumer phase may be Early Woodland in date; however, Baumer is predominantly Middle Woodland in time. The presence of rare sherds similar to those of Hopewellian and occasional decoration of pottery similar to Hopewellian decoration are generally seen as evidence of the essentially Middle Woodland character of the Baumer phase (Cole et al. 1951:200).

Another cultural complex with very similar features is known as the Crab Orchard phase. This complex was originally defined for the area close to Carbondale, Illinois (Maxwell 1951). The Crab Orchard phase appears to be essentially an upland variant of the more lowland-oriented Baumer phase. Crab Orchard sites have also been identified in the Wabash Valley, but these sites could probably be treated as being Baumer if minor differences in temper in pottery are de-emphasized. Neither Baumer nor Crab Orchard show heavy evidence of participation in the networks of exchange that developed among various Hopewellian complexes, but Crab Orchard sites do contain more "Hopewellian" material than do the more distant Baumer sites. Sites in the lower Wabash and Saline, such as Rutherford Mounds, however, do show evidence of such participation (Fowler 1957).

The decline of Middle Woodland in the northeast has been attributed to many causes, ranging from peasant revolt (very unlikely) to climatic shifts which lowered the carrying capacity of the environment below that point for which efficiency of distribution could compensate (possible). One of the problems of the climatic interpretation, however, is that it may even be that the population of eastern North America actually increased following the decline of Hopewell and other important Middle Woodland cultures. In any case, the time of transition between the Middle and Late Woodland periods was a time of change in eastern North America.

Diagnostic Middle Woodland artifacts:

Pottery:

- Baumer plain (Cole et al. 1951:195-96)
- Baumer cord-marked (Cole et al. 1951:196-98)
- Sugar Hill cord-marked (Maxwell 1951:273-74)
- Crab Orchard fabric-marked (Maxwell 1951:274-75)
- Crab Orchard cord-marked (Maxwell 1951:275-76)

Projectile points:

Snyders corner-notched (Winters 1967:45-46)

Affinis Snyders point (Winters 1967:26-27, 45-46)The Late Woodland Period

There is an important discontinuity in the pattern of seemingly continuous growth and development in the cultures of eastern North America during the Late Woodland period. Across the northern part of the eastern United States at least, Late Woodland cultures appear to be very similar. The Middle Woodland tradition of fairly elaborate decoration on pottery is eclipsed, and nearly all ceramics are of a simple cord-marked type. There is a marked decrease in the building of burial mounds and a decrease of earthwork building. There is also a relative lack of items acquired through long-distance trade as compared to Middle Woodland and a seeming lack of evidence of status differences. This state of affairs has led many scholars to speak of a decline in culture for this period, or of a "good gray period." However, a noticeable increase in the number of Late Woodland sites in most areas as compared to Middle Woodland may very well indicate a population increase. This and the continuance of Middle Woodland-like traditions in parts of the southern United States leads one to believe the Late Woodland period was a time of important change despite its appearance of decline.

For example, while moundbuilding had almost entirely ceased in the north, the moundbuilding traditions of the Middle Woodland period were continued at the Kolomoki site in southern Georgia, the Weeden Island culture of northern Florida, and the Issaquena phase of the Marksville culture in Louisiana. In fact, mound construction in these cultures is in some ways more elaborate than that of the earlier cultures and begins to show some characteristics of moundbuilding in the Late Prehistoric period. Thus, while the Late Woodland is generally characterized by a decrease in the organization of activities, this may not be the case in all areas.

In most areas, however, the evidence for differences in social status, and for political organization in general, is on the decrease for Late Woodland. One of the more striking characteristics of this period is the curtailment of long-distance trade in exotic items which was so important earlier. While it would be tempting to conclude that this was due to a greater independence of local groups brought about by an increased productivity from cultivated plants, the evidence for horticulture in Late Woodland is nearly as poor as it is for earlier periods. Furthermore, Late Woodland sites were often located in agriculturally poor upland areas.

Another factor which has been suggested as contributing to the changes of the Late Woodland period is the introduction of the bow and arrow at about this time (Ford 1974). If the greater efficiency and

accuracy of bows and arrows helped to make possible the exploitation of a wider range of animal food sources and hence the greater independence of the local groups, there would be less need for long-distance trade networks like the Hopewell Interaction Sphere. Until there is better evidence of the utilization of plant and animal resources by Late Woodland peoples, it will not be known whether the changes which occurred during this time were the result of a new hunting technology, of some increase in plant cultivation, of changes resulting from climatic conditions, or some combination of these factors. From the evidence of site location and of plant and animal remains that is available, however, it would appear that the Late Woodland pattern is one of intensified hunting and collecting. Even so, fairly large, and probably semi-sedentary, occupation sites are not infrequent for Late Woodland.

During Late Woodland times, as well as in other periods, there appears to be a cultural boundary near the mouth of the Wabash River. The Lewis phase has been defined in the lower portion of the Ohio River valley (Cole et al. 1951:Chapter V; MacNeish 1955g). Duffy and/or Yankeetown phase sites are found in the area of the lower Wabash (Winters 1967:69-70; Munson, Limp, and Barton 1977:87-88). The differences among these complexes are mainly to be found in ceramic technology. The general way of life appears to be the same in all areas. As in the case of all the phase distinctions made in the lower Ohio, refinements of phase definitions are needed.

Late Woodland diagnostic artifacts include thin, cord-marked pottery and small projectile points. In some areas, burial cairns of limestone slabs were built. One such site is listed in Appendix A: the 25D2-06 site in river mile group 883-887.

The Lewis phase (MacNeish 1944a) is identified by Lewis pottery (Cole et al. 1951:178-81) and by various projectile point types (Cole et al. 1951:174-5). The differences between the ordinary Lewis sherds and those found in other Late Woodland complexes such as Duffy and Yankeetown (Winters 1967:69-70) and Raymond and Dillinger (Maxwell 1951) are slight. In most cases, it would be a brave specialist who would undertake to classify a site as belonging to a particular Late Woodland complex on the basis of only a few cord-marked sherds. The major differences occur in temper type and in low frequency decorated types. In the Tennessee-Cumberland confluence area, the distribution of Lewis sites is very similar to later Mississippian sites; and later Lewis levels show decreasing use of cord roughening. The exact relationship of Lewis to other Late Woodland complexes to the north is obscured by the spotty nature of archaeological coverage.

Diagnostic Late Woodland artifacts:

Pottery:

- Lewis cord-marked (Cole et al. 1951:180)
- Lewis plain (Cole et al. 1951:180)
- Duffy plain (Winters 1967:66-67, 89)

Duffy decorated (Winters 1967:66-67, 89)
Yankeetown incised (Winters 1967:66-67)
Yankeetown filleted (Winters 1967:66-67)

Projectile points:
Mounds stemless (Winters 1967:70)

The Late Prehistoric Period

The Late Prehistoric period involved a dramatic increase in the dependence upon agriculture as a food resource (Ford 1974). Granted that the evidence on this problem is incomplete, the change to an agricultural economic base seems to have occurred very rapidly. The causes of change are also not totally clear. New varieties of maize seem to have been introduced at about this time, and it is likely that the bean (*Phaseolus vulgaris*) was also introduced into the south-east slightly later. Dependence upon agriculture, however, was far from complete. Remains from sites of this period suggest a continued reliance on deer, fish, small game, migratory waterfowl, and nuts for food.

This economic pattern of a larger scale horticultural regime supplemented by hunting and collecting of wild foods spread rapidly to most of eastern North America. In the areas more favorable for agriculture, notably annually flooded areas on the larger streams and major rivers, a cultural pattern developed known as Mississippian. Its characteristics are shell-tempered pottery, animal or human effigy bowls, rectangular substructure mounds usually arranged around a plaza, and triangular projectile points.

The political organization of the societies of the Late Prehistoric period differed markedly from that of any earlier period. Accounts of early Spanish explorers as well as evidence from excavations of the large sites show that political authority was centralized and fairly powerful. Political leaders and their close kinsmen probably enjoyed special privileges and may have functioned in the society as a leadership group in times of war and as an economic force by which trade and the distribution of goods and services could be controlled and stabilized. With much larger populations and hence with a fairly large and tributary labor force, Mississippian political leaders organized the construction of large ceremonial centers which were often surrounded by defensive palisades of wood, wattle, and daub (for discussion of Mississippian fortification, see Lafferty 1973). These ceremonial centers consisted of large rectangular truncated mounds that often served as platforms for ceremonial buildings or dwellings of important persons.

Mississippian sites are of several types; and, in many cases, the size of these sites is limited by the need to occupy higher ground of the ridge-and-swale bottomland areas which were best for agriculture

but which were often flooded. In addition to the larger centers such as the Kincaid site, a large "town" in the center of the Black Bottom slightly outside the project boundaries (Cole et al. 1951; Muller, in press a, b; and other sources listed under Massac County), there were smaller centers with fewer and smaller mounds. The Kincaid site itself is a National Historic Landmark and is a State of Illinois Archaeological Preserve. In areas with larger bottomland ridges, there were hamlets of from ten to fifteen houses. The most common type of Mississippian site, however, was the farmstead consisting of from one to three houses, usually scattered along a ridge.

Usually a major ceremonial center and town were surrounded by many hamlets and farmsteads (Butler 1977; Muller, in press a). The Mississippian houses in these settlements were "nuclear family-sized" dwellings (approximate average of 5 x 5 meters) made of wattle and daub with thatched roofs.

Mississippian cultures in the strictest sense are largely restricted to the northern coastal plain along the Mississippi and Ohio rivers as well as in the Tennessee and Cumberland River valleys. Although the basic characteristics of Mississippian in these areas are relatively uniform, there are substantial local and regional differences. There are many similar cultures in other areas of the eastern United States which have sometimes been characterized as Mississippian or Mississippian-influenced, but many of these appear to have somewhat different methods of adaptation to their environments.

Mississippian cultures show an apparent decline of social organization after A.D. 1350, but the causes for this apparent decline are not clear. Factors as diverse as adverse climatic conditions and the development of new productive capabilities have been proposed (Muller, in press c). By the late sixteenth century, the introduction of European diseases decimated many remaining Mississippian societies.

Because of the homogeneity of the Late Prehistoric cultures of the Ohio River valley in southern Illinois, it is usually not possible to attribute sites to a given phase solely on the basis of the site records or diagnostic artifacts. Four major phases have been named in the project area or in nearby localities, however. The first of these is the Kincaid phase, named for the major Mississippian center in the lower Ohio valley (Cole et al. 1951, and many other papers listed under Massac or Pope counties). The duration of the Kincaid phase is from at least A.D. 1000 to 1400, and the phase may have begun as early as A.D. 900. This phase is located in the area of the Tennessee, Cumberland, and Ohio river junctions. The Angel phase (Black 1967), named for the large center near Evansville, Indiana, is closely related to Kincaid although it may be somewhat later. The Angel and Kincaid phases are similar enough that the justification for separate phase names can be questioned. In any case, there is very little way to determine whether a site lying half way between the two centers should be attributed to one or the other phase. A third phase

is known as Caborn-Welborn and dates to circa A.D. 1450 to 1650 (Green and Munson, in press). This phase is limited to the area surrounding the Ohio and Wabash confluence. Caborn-Welborn is actually quite different from Angel or Kincaid phases and can be identified by Caborn-Welborn pottery (Green and Munson, in press). Another Late Prehistoric phase which may occur in the very lowest part of the Ohio River valley is known as the Cairo Lowlands phase (Williams 1954; Phillips 1970: 928), and it dates roughly the same period as the Kincaid phase. This is predominantly a complex of southeast Missouri, but it is possible that some sites in the Ohio Valley might be assigned to this phase were better information available.

Diagnostic Late Prehistoric ceramics:

Kincaid phase:

Kincaid plain (Cole et al. 1951:145-46)
 Kincaid red-slipped (Cole et al. 1951:147-48)
 Nashville negative-painted, var. Kincaid
 (Phillips 1970:140-41)

Angel phase:

Nashville negative-painted, var. Angel
 (Phillips 1970:140)

Caborn-Welborn phase:

unnamed ceramic types (Green and Munson, in
 press)

Cairo Lowlands phase:

Bell plain, var. New Madrid (Phillips 1970:60-61)
 Wickliffe thick, var. Wickliffe (Phillips 1970:
 171-72)

Historic Indians

There is some evidence that the lower Ohio River valley was a boundary area, or "no man's land," during early historic times for Indian groups. The area was probably used as a hunting ground by various groups: the Shawnee and possibly the Yuchi and Chickasaw to the south, and the Algonkian tribes to the north such as the Kaskaskia, Cahokia, Tamaroa, and Illini. The Shawnee may have had the best claim to the area, though their major center of settlement during Tecumseh's day was in the central and upper Wabash valley. The large Indian site at Shawneetown, Illinois, is of course reputed to be a Shawnee village site; but this is tradition with little supportive archaeological evidence. The other identified historic Indian sites in the project area are Indian villages near to and associated with Fort Massac (Lathrop and Grubisich 1970). It is likely that these were villages of mixed tribal composition, inhabited by Indians who wished to live near the

fort for trading or other purposes. There has to date been no identification of artifacts from these sites which could determine cultural affiliation with a particular tribe.

HISTORICAL RESOURCES OF THE OHIO RIVER VALLEY IN ILLINOIS

by David Wilson and Margo Carlock

Introduction

An intense survey, using the resources of Morris Library at Southern Illinois University, was made of county and state histories. Particular attention was paid to material relating to the six Illinois counties touching the Ohio River -- Gallatin, Hardin, Pope, Massac, Pulaski, and Alexander. Maps, atlases, and travel accounts were surveyed; and the National Register of Historic Places was consulted. These materials were used to evaluate the historical importance of the Ohio River to the development of Illinois.

The researchers also then travelled to the state capital in Springfield, Illinois, to examine State archives for relevant material. The Works Project Administration's survey of county records completed in the 1930's indicated that county records in southern Illinois were fragmentary at best. The researchers consulted local authorities knowledgeable on the history of the six counties. It was confirmed that the records of the various counties were in sad condition. Many valuable materials have been destroyed in various fires and natural calamities. The Illinois State Historical Library in Springfield was visited because of its fine collection of county histories.

The records of the Division of Historic Sites, Illinois Department of Conservation in Springfield, were investigated. These records included considerable data not listed in the Illinois Historic Landmarks Survey and the Illinois Historic Structures Survey. In fact, given the time constraints, this study would have been impossible without these invaluable materials. The local authorities consulted supplemented this data. One local historian pointed out, for example, that the U. S. Naval Hospital in Mound City, appearing on the National Register of Historic Places, recently burned; and little of the original structure remains.

The information gathered on historic sites was then analyzed during the preparation of the report. The data presented have several limitations. County histories written in the late nineteenth and early twentieth centuries are notoriously unreliable. These histories must be subjected to intense questioning. The memories of local authorities

are fallible and should be accepted only after verification. Another potential problem is that the Illinois Historic Landmarks Survey and the Illinois Historic Structures Survey are only preliminary investigations subject to revision. The researchers believe that little of additional significance would be turned up in a new survey of the area between Cairo and Metropolis. According to the Illinois Historic Site Officer in Shawneetown, however, there may be gaps in the survey of the area between Shawneetown and Metropolis. The researchers believe that this gap in information should not significantly bias the results of this study so long as it is understood that all sites worthy of inclusion have probably not yet been identified. Only a more intense -- and costly -- investigation could accomplish this task.

The Historical Development of the Lower Ohio River Valley in Illinois

The Ohio River has long been central to the development of the Illinois country. During prehistoric times, the numerous Indian sites attest to the river's importance. The river provided many of the necessities of life while also serving as an avenue of communication and trade. The river must have dominated the lives of the Indians dwelling along its banks.

The powerful Iroquois Confederation prevented early English colonists from spreading into the Ohio River valley from the east during the seventeenth century. The Iroquois, however, were unable to prevent the French in Canada from coming into the Mississippi Valley from the north. Louis Jolliet and Father Jacques Marquette, early French explorers, discovered Illinois in June, 1673, while travelling down the Mississippi River seeking a route to the Orient. They canoed down the Mississippi past the mouth of the Ohio to the junction of the Arkansas River and the Mississippi. The French established a series of settlements along the Mississippi (the area now known as *American Bottom*) with Cahokia (1699) and Kaskaskia (1703) the most important. These settlements gave the French control of the middle of the North American continent from the Great Lakes to New Orleans.

The first French attempt to exploit the Ohio River began in 1702. Charles Juchereau de St. Denys, a fur trader and a royal judge in Montreal, proposed to establish a tannery for bison hides near the confluence of the Ohio and the Mississippi. Juchereau believed that his outpost would become the focal point for French colonization of the area. The proposal attracted Louis XIV because the English were beginning to penetrate the center of the continent from the south. This threatened to upset the balance of power in the region, and Louis XIV hoped that a fortified settlement would end the threat. Juchereau established his tannery in 1703 on a hill overlooking the Ohio River (the site today is called the VaBache site near river mile 957). Whether the tannery failed as a result of disease or Indian

attack is uncertain. After this initial failure, the French were slow to pursue their advantage of easy access to the Ohio from the Mississippi.

Strategically, the Ohio River was the key to the middle of North America by the 1740's. Consequently, the river became one of the focal points in the great struggle for empire between England and France during the eighteenth century. Indeed, the French were convinced of the need to control the Ohio River valley and began to move aggressively into the upper Ohio region. These activities provoked American colonists from Virginia interested in exploiting the area. The Virginians, led by George Washington, attempted to force the French out of the area. Thus, the first engagements of the French and Indian War (Seven Years War in Europe) occurred in the Ohio Valley. The French presence in the upper valley made it necessary for them to fortify the lower region of the river to protect their lines of communication from disruption. The construction of a fort near the confluence of the Mississippi and Ohio was authorized as early as 1746. Fort Massac (Fort de l'Ascension) was not construction until 1757, however. The fort provided the French with some obvious military advantages. It protected supply lines into the upper Ohio while guarding the Mississippi from incursion. But the French eventually lost the war and were forced to cede Canada and the middle of the continent to England.

Although Canada fell to the English in 1760, they failed to occupy the Illinois country until 1765 because of problems with the Indians. The English planned to garrison Fort Massac with sixty soldiers, but the fort was burned by Indians before the soldiers arrived. The fort was reconstructed a decade later by the Americans.

American colonists understood that control of the Ohio River was the key to the domination of the middle of the continent. In the Proclamation of 1763, the British closed the newly won territory to colonization. This policy was one of the early points of contention between the Americans and the English. The colonists believed that they had won the right to settle and to exploit the region during the French and Indian War. The English, on the other hand, wanted to protect their valuable fur trade and maintain good relations with the various Indian tribes along the river. The American colonists -- to the great distress of the English -- simply ignored the imperial edict and began the long trek across the Alleghenies. And so the struggle for the possession of the Ohio River valley continued.

The American Revolution started in 1775; and George Rogers Clark, a settler in Kentucky, convinced the governor of Virginia that it was essential to mount an expedition against the British forces in and around Illinois. Moving down the Ohio to the site of Fort Massac and then overland to Fort Kaskaskia, Clark carried out a brilliant campaign in 1778. His efforts meant that the Americans could rightfully claim the Interior of the continent in the final peace settlement with the British.

Southern Illinois was claimed by Virginia until 1783 when the newly freed colonies ceded all their western land claims to the new national government organized under the Articles of Confederation. The few Americans along the river were left largely to their own devices for years with no real government. As travellers moved down the Ohio, the unwary were often waylaid by river pirates in places like Cave-in-Rock (river mile 880). The Northwest Ordinance passed in 1787 organized the vast territory east of the Mississippi and north of the Ohio into the Northwest Territory. It was decreed that the region would eventually be divided into not more than five nor less than three states. This was the first time in history that a nation allowed for the admission of its territories on an equal basis. By 1790, the governor of the Northwest Territory, Arthur St. Clair, reached Illinois and established a rudimentary government. In 1797, Cantonment Wilkinson (river mile 958) was built to protect whites against Indians and river pirates and to watch over the machinations of the Spanish. Control of the river was essential for these tasks. Fort Massac was also reconstructed and garrisoned.

In 1800, Illinois became a part of the Indiana territory with William Henry Harrison as governor. At that time, the approximately 2,500 residents of Illinois (according to the census of 1800) all lived along the navigable streams of the area. As there were no roads into the interior, water transportation was the only practicable means of travel. In 1808, Illinois was organized into a separate territory with the Mississippi, Ohio, and Wabash rivers forming the southern boundaries. The territorial capital was established at Kaskaskia on the Mississippi River.

With the purchase of the Louisiana Territory from France in 1803, Illinois was no longer the western boundary of the United States. This meant that the Mississippi River was open to the sea without constraints from the Spanish or French authorities. Although westward migration was temporarily halted by the War of 1812, the Illinois territory was attractive to settlers. The Ohio River became the gateway to the west. The pioneers moved down the river from the east or crossed it from the south to enter the territory. Most settled along waterways in the southern region of the territory.

The newly invented steamboat added to the importance of the Ohio River by making it possible to travel quickly and efficiently either upstream or downstream. Within a few years after the War of 1812, steamboats were operating on a regular basis on the navigable streams and rivers of the midwest. This stimulated commerce and encouraged further settlement along the rivers. On the Ohio River in Illinois, towns like Shawneetown, Elizabethtown, Golconda, Metropolis, Grand Chain, Caledonia, Mound City, Trinity, and Cairo grew up and prospered as river ports from 1812 until after the Civil War.

Enough people had migrated to Illinois by 1818 to make the territory eligible for statehood; and, in that year, the territory was

organized into the twenty-first state. The majority of the people living in the new state were in its southern region. Because of the utility of water transportation, most of these people lived near a river. But challenges to the supremacy of the river system developed in the 1820's. The completion of the Erie Canal in 1825 made the central and northern portions of the state easily accessible from the Great Lakes. Lake transportation in conjunction with a growing railroad and canal network bound upper Illinois to the industrializing northeast. Consequently, most of the growth in the state after 1830 occurred in the north rather than in the south. This shifting growth pattern was reflected by the moving of the state capital to Vandalia and then to Springfield in 1837.

The fertile prairies to the north attracted hundreds of thousands of farmers which led to the growth of numerous communities to service the farmers. Chicago grew rapidly as a center of trade during the 1840's and 1850's. But the Ohio River was still an important avenue of commerce and contributed greatly to the prosperity of southern Illinois.

During the Civil War, the Ohio River again assumed great strategic importance. General Ulysses S. Grant realized that southern tributaries of the Ohio River, particularly the Cumberland the Tennessee Rivers, pointed the way into the heart of the Confederacy. Starting from Cairo, Grant utilized gunboats, many of which were constructed at the Marine Ways in Mound City, to attack southward into Tennessee. Once control of this river system was secured in 1862, Grant moved on Vicksburg and captured the city on July 4, 1863. This meant that the Union controlled the center of the continent which was a major factor in the Union victory.

Cities like Cairo and Mound City prospered as a result of the war. Cairo became the major staging area for Grant's southern movements. The city was located at the confluence of the Mississippi and Ohio and was the southern terminus of the Illinois Central Railroad. And, indeed, it was during the Civil War that these Ohio River communities reached their zenith.

Southern Illinois was economically, socially, and culturally a reflection of the south. After the Civil War, the south was prostrate. The rapid postwar industrialization of the north passed by southern Illinois. The cities along the river started a slow process of deterioration that has not been arrested. The areas along the Ohio River in Illinois withered away, but the energy crisis has caused a revival of coal mining in southern Illinois; and this may restore prosperity to the region. The need to transport the coal to market should revive river commerce. Also, as other forms of transportation become more expensive, river transportation may reach new peaks.

The years since the Civil War have not been kind to southern Illinois, and this fact is reflected in the nature of the historic

sites along the river. Most places of historic significance were created in the days during or before the Civil War. After that time, prosperity faded and hopes waned. But perhaps the problems created by the worldwide energy crisis will again restore these moribund river communities. If that occurs, the existing historic sites will call to mind the rich heritage of an earlier era.

BIBLIOGRAPHY AND REFERENCES CITED

Archaeological and Related Sources

- Adams, R. M.
1948 Notes and news. Northern Mississippi Valley. American Antiquity 13:274-75.
- Alexander, Charles S.
1974 Some observations on the Late Pleistocene and Holocene history of the Lower Ohio Valley. Occasional Publications of the Department of Geography no. 7. University of Illinois, Urbana-Champaign.
- Alexander, Charles S., and J. Ronald Eyton
1973 Trend surface analysis of flood plain and alluvial terraces in southern Illinois and western Kentucky. Geological Survey of America Bulletin 84:1069-74.
- Alexander, Charles S., and Jean C. Prior
n.d. Time-depth relationships in Ohio River alluvium.
- 1968 The origin and function of the Cache Valley, Southern Illinois. In The Quarternary of Illinois, edited by R. E. Bergstrom. University of Illinois College of Architecture Special Publication 14:19-26.
- 1971 Holocene sedimentation rates in overbank deposits in the Black Bottom of the lower Ohio River, southern Illinois. American Journal of Science 270:361-72.
- Allen, J. W.
1954 Christmas at the mouth of the Cache River in 1810. Central States Archaeological Journal 1:63.
- Andrews, V.
1932 Prehistoric man in southern Illinois. Hobbies 37:107-08.
- Anonymous
1941 Pyramids in Illinois. Hobbies 46:112.
- 1943 Report on the First Archaeological Conference on the Woodland Pattern. American Antiquity 8(4):353-400.
- 1959 The Raven Pipe. Living Museum 2:401-03.

- Baerreis, D. A.
 1952 Reviews of "Kincaid, A prehistoric Illinois Metropolis," and "The Woodland cultures of southern Illinois: Archaeological Investigations in the Carbondale Area." American Anthropologist 54:556-58.
- Bailey, W. D.
 1942 Progress Report on the cataloguing and classifying of Kincaid artifacts. Manuscript, Department of Anthropology, University of Chicago.
- Bauxer, J. J.
 1957a Yuchi ethnoarchaeology, part I. Ethnohistory 4:279-301.
 1957b Yuchi ethnoarchaeology, parts II-IV. Ethnohistory 4(4):309-465.
- Beeson, William J.
 1953 Partial results of an archaeological survey in southern Illinois. Illinois State Archaeological Society Journal 3:53-67.
- Bell, Robert
 1943 Lithic Analysis as a Method in Archaeology. M.A. thesis, University of Chicago.
 1946 Chronology in the middle Mississippi Valley. Ph.D. dissertation, Department of Anthropology, University of Chicago.
 1951 Dendrochronology at the Kincaid site. In Kincaid: A Prehistoric Illinois Metropolis, by Fay-Cooper Cole et al., pp. 233-92. University of Chicago Press, Chicago.
 1953 Lithic analysis in archaeological method. American Anthropologist 55:299-301.
 1958 Guide to the identification of certain American Indian projectile points. Special Bulletin no. 1 of the Oklahoma Anthropological Society.
- Bennett, John W.
 n.d.a Trait comparison of Kincaid and Angel sites. University of Chicago Field School papers, manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.

- n.d.b The comparative archaeological data of the Kincaid component. Manuscript, Department of Anthropology, University of Chicago.
- n.d.c Ceramic remains from the Lewis component. Manuscript, Department of Anthropology, University of Chicago.
- 1940a A preliminary survey of the Kincaid component and its affiliations. M.A. thesis, University of Chicago.
- 1940b Archaeological reconnaissance. University of Chicago Field School papers, manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.
- 1940c Preliminary notes on the Baumer site. Southeastern Archaeological Conference Newsletter 2(3):7-8.
- 1941a Excavations at Kincaid. Southeastern Archaeological Conference Newsletter 2(4):13-17.
- 1941b Salt pans at the Kincaid site. American Antiquity 2:165-66.
- 1944a Note on Middle Mississippi architecture. American Antiquity 9(3):333-34.
- 1944b Interaction of culture and environment in smaller societies. American Anthropologist 46(4):461-78.
- 1944c Archaeological horizons in the southern Illinois region. American Antiquity 10(1):12-22.
- 1951 Kincaid designative trait list. In Kincaid: A prehistoric Illinois metropolis, by Fay-Cooper Cole et al., pp. 36-365, University of Chicago Press, Chicago.
- Bennett, John W. and Moreau Maxwell
1942 Archaeological horizons in Southern Illinois (abstract). Transactions of the Illinois State Academy of Science 35(2):50.

- Biggs, D. L.
1952 Petrography & origin of Illinois nodular charts. Illinois Geological Survey, Circular no. 245.
- Binford, Lewis
1962 Archaeology as anthropology. American Antiquity 28(2):217-25.
- Blakeman, Crawford
1974 The Late Prehistoric paleobotany of the Black Bottom, Pope and Massac counties, Illinois. Ph.D. dissertation, Department of Anthropology, Southern Illinois University, Carbondale.
- Black, Glenn
1939 Notes and news: northern Mississippi area. American Antiquity 5:164-67.
-
- 1967 Angel site: An archaeological, historical, and ethnological study. Indiana Historical Society, Indianapolis.
- Blasingham, Emily
1972 The prehistoric and historic uses of Saline Springs, Gallatin County, Illinois. Manuscript, University Museum, Southern Illinois University, Carbondale.
- Bonnell, C.
1928 A primitive industry in southeastern Illinois. Transactions of Illinois State Academy of Science 21:332-39.
- Braun, David
1977 Middle Woodland-(Early) Late Woodland social change in the prehistoric central midwestern U.S. Ph.D. dissertation, University of Michigan. Xerox University Microfilms, Ann Arbor.
- Braun, Lucy E.
1967 Deciduous forests of eastern North America. Hafner Publishing Co., New York.
- Brieschke, Walter L.
1971a Certain Clovis style projectile points from Massac County, Illinois. Journal of the Illinois Association for the Advancement of Archaeology.
-
- 1971b Report on salvage work undertaken at the J. W. Quint #1 and #2 sites (25C2-17 and 25C2-129) on FAI 24, Massac County, Illinois. Archaeological Salvage Report no. 33, University Museum, Southern Illinois University, Carbondale.

Brown, James A.

- n.d. The impact of the European presence on Indian culture: The conquest for empire in the Ohio Valley and Old Northwest Territory. Manuscript.

Butler, Brian

- 1972 Early vegetation of the Kincaid area. Manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.

-
- 1977 Mississippian settlement in the Black Bottom, Pope and Massac counties, Illinois. Ph.D. dissertation, Department of Anthropology, Southern Illinois University, Carbondale.

Caldwell, Joseph R.

- 1937 1937 Metropolis expedition: Excavations at the Kincaid site. University of Chicago Field School papers, manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.

-
- 1959 The Mississippian period. Illinois Archaeological Survey, Bulletin no. 1, pp. 33-39.

-
- 1958 Trend and tradition in the prehistory of the eastern United States. American Anthropological Association, Memoir no. 38.

Cerretti, Diane

- 1975 Vegetation and soil-site relationships for Shawnee Hills region, southwestern Illinois. M.S. thesis, Forestry Department, Southern Illinois University, Carbondale.

Chard, C. S.

- 1961 Invention versus diffusion: The burial ground complex of eastern United States. Southwestern Journal of Anthropology 17:21-25.

Chomko, Stephen, and G. W. Crawford

- 1977 Plant husbandry in prehistoric eastern North America: New evidence for its development. Manuscript.

Clay, R. Berle

- 1963 Ceramic complexes of the Tennessee-Cumberland region in western Kentucky. M. A. thesis, University of Kentucky, Lexington.

-
- 1976 Tactics, strategy, and operations: The Mississippian system responds to its environment. Midcontinental Journal of Archaeology 1(2):137-62.

Coe, M. D., and W. F. Fischer

- 1959 Barkley Reservoir - Tennessee portion archaeological investigations 1959. Manuscript, National Park Service, Region One, Richmond.

Cole, Fay-Cooper

- 1935a Investigating mound builders, Kincaid Mounds, Illinois. Literary Digest 119:12.

- 1935b Fieldwork in North America during 1934: Illinois. American Antiquity 1:63-64.

- 1935c Notes and news: Northern Mississippi area. American Antiquity 1:156-59.

- 1940 Notes and news: Northern Mississippi area. American Antiquity 5:238-42.

- 1941a Notes and news: Northern Mississippi area. American Antiquity 6:275-80.

- 1941b Pyramids in Illinois. El Palacio 48:260-61.

- 1941c Pyramids and other ruined cities? Science N.S. 94(2444):11.

- 1943 Chronology in the Middle West. Proceedings of the American Philosophical Society 86(2).

Cole, Fay-Cooper, et al.

- 1951 Kincaid, a prehistoric Illinois metropolis. University of Chicago Press, Chicago.

Cox, Flemin W.

- 1933 Southern Illinois as a focus for primitive people because of geographic factors. Transactions of the Illinois State Academy of Science 25:103-05.

Crane, H. R.

- 1958 University of Michigan, radiocarbon dates III. Science 128:1117-23.

Crane, H. R., and H. B. Griffin

- 1960 University of Michigan, radiocarbon dates V. American Journal of Science Radiocarbon Supplement 3:31-48.

Davis, R. N.

- 1967 The discovery of a bannerstone with two holes. Central States Archaeological Journal 14:4-6.

Davy, Douglas M.

- 1976 Mammalian remains at IAS-Mx-109. Manuscript on file, Southeast Archaeological Laboratory, Department of Anthropology, Southern Illinois University, Carbondale.

- 1977 Mammalian remains from the Kincaid site. Manuscript on file, Southeast Laboratory, Department of Anthropology, Southern Illinois University, Carbondale.

Dearinger, L. A.

- 1956 Reporting archaeological evidence in Pope County, Illinois. Central States Archaeological Journal 3:12-13.

- 1963 Millstone Knob. Outdoor Illinois 2(5):4-14.

- 1966 The Kincaid Mounds. Outdoor Illinois 5(7):4-18.

Deuel, Thorne

- 1935 Basic cultures of the Mississippi Valley. American Anthropologist 37(4):429-45.

- 1938a Lower Mississippi traits in the Middle Phase in Illinois. Transactions of the Illinois State Academy of Science 31:68-70.

- 1938b Notes and news: Northern Mississippi area. American Antiquity 4:165-67.

Deuel, Thorne, and D. F. Titterington

- 1937 Notes and news: Northern Mississippi area. American Antiquity 2:223-25.

Dragoo, Don W.

- 1976 Some aspects of North American prehistory: A review 1975. American Antiquity 4(1):3-27.

Emerson, J. N.

- n.d. A preliminary report and interpretation of examinations of Mx-10, Kincaid site, 1940-1941. University of Chicago Field School Papers, manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.

- 1943 Comparative treatment of pottery artifacts from Mx-10. Manuscript, Department of Anthropology, University of Chicago.
- Engelmann, Henry
1863 Remarks upon the causes producing the different characters of vegetation known as prairies, flats, and barrens in southern Illinois, with special reference to observations made in Perry and Jackson counties. American Journal of Science, second series 36(108):384-97.
- 1866a Massac County and that part of Pope County south of the Big Bay River. In Geological Survey of Illinois, Vol. 1, edited by A. H. Worthen, pp. 248-55.
- 1866b Pulaski County. In Geological Survey of Illinois, Vol. 1, edited by A. H. Worthen, pp. 410-27.
- Estes, Eugene
1969 The dendrochronology of three tree species in the central Mississippi Valley. Ph.D. dissertation, Department of Botany, Southern Illinois University, Carbondale.
- Faulkner, Charles
1975 The Mississippian-Woodland transition in the eastern Tennessee Valley. Southeastern Archaeological Conference Bulletin 18:19-30.
- Ferguson, R. B., and J. B. Broster, J. W. Jard, Jr., and J. W. Cambron
1972 The Middle Cumberland Culture. Vanderbilt University Publications in Anthropology, no. 3.
- Fisk, Harold N.
1944 Geological investigation of the alluvial valley of the lower Mississippi River. War Department Corps of Engineers, U. S. Army. Conducted for the Mississippi River Commission, Publication no. 52, Washington.
- Florio, Philip
1960 Southern Illinois -- the Indian's paradise. Central States Archaeological Journal 7:30-32.
- Ford, James A.
1969 A comparison of formative cultures in the Americas: Diffusion or the psychic unity of man. Smithsonian Contributions to Anthropology, Volume 2.

Ford, J. A., and G. R. Willey

- 1941 An interpretation of the prehistory of the eastern United States. American Anthropologist 43:325-363.

Ford, Richard I.

- 1974 Northeastern archaeology: Past and future directions. In Annual Review of Anthropology, 1974. edited by Bernard J. Seigel. Annual Reviews Inc., Palo Alto.

Fowke, Gerard

- 1928 Archaeological investigations -- II. Forty-fourth Annual Report of the Bureau of American Ethnology, pp. 530-32.

Fowler, Melvin L.

- 1956 The skill of a museum artist. Living Museum 18:157-58.

1957a Rutherford Mound, Hardin County, Illinois. Illinois State Museum, Scientific Papers 7(1).

1957b Ferry site, Hardin County, Illinois. Illinois State Museum, Scientific Papers 8(1).

1959 The Early Woodland period. Illinois Archaeological Survey Bulletin no. 1, pp. 17-20.

1960 Report of phase 2 preliminary site examination of the Dalton site on FAI 57 in Pulaski County, Illinois. Archaeological Salvage Report no. 6, University Museum, Southern Illinois University, Carbondale.

1966 Agriculture and village settlement in the North American east: The central Mississippi Valley area, a case history. Proceedings of the 36th International Congress of Americanists vol. 1:57-66.

Foster, J. W.

- 1973 Prehistoric races of the United States. Griggs and Company, Chicago.

Funkhouser, W. D., and W. S. Webb

- 1931 The Duncan site. The University of Kentucky, Reports in Archaeology and Anthropology 6.

Gilreath, Amy

- 1976 Floral analysis at IAS-Mx-109. Manuscript on file, Southeast Archaeological Laboratory, Department of Anthropology, Southern Illinois University, Carbondale.

Goodyear, Albert C.

- 1974 The Brand site: A techno-functional study of a Dalton site in northeast Arkansas. Arkansas Archaeological Survey, Publications on Archaeology, Research Series no. 7.

Gorenstein, Shirley, et al.

- 1975 North America. St. Martin's Series in Prehistory. St. Martin's Press, New York.

Green, Thomas, and Cheryl A. Munson

- in press Mississippian settlement patterns in southwestern Indiana. Paper presented at the 42nd annual meeting of the Society for American Archaeology, April 1977.

Griffin, J. B.

- 1946 Cultural change and continuity in eastern United States archaeology. In Man in Northeastern North America, edited by F. Johnson, pp. 37-95. Papers of the R. S. Peabody Foundation for Archaeology, Vol. 3.

- 1952a Archaeology of eastern United States. University of Chicago Press, Chicago (editor).

- 1952b Culture records in eastern United States archaeology. In Archaeology of eastern United States, edited by J. B. Griffin, pp. 352-54. University of Chicago Press, Chicago.

- 1967 Eastern North American archaeology: A summary. Science 156: 175-91.

Grogan, R. H.

- 1949 Notes and news: Northern Mississippi Valley. American Antiquity 15:269-70.

- 1954 Notes and news: Northern Mississippi Valley. American Antiquity 20:93.

- 1955 Notes and news: Northern Mississippi Valley. American Antiquity 20:13.

Haag, W. G.

- 1942 Early horizons in the Southeast. American Antiquity 7: 208-22.

Hall, Edward Emerson

- 1940 The geography of the interior low plateau and associated lowlands of southern Illinois. John S. Swift and Co., St. Louis.

- Hall, R. L.
1945 Notes and news: Western Mississippi Valley. American Antiquity 11:135.
- Hanson, Lee H., Jr.
1970 The Jewell site, Bn-21, Barren County, Kentucky. Tennessee Archaeological Society, Miscellaneous Paper no. 8.
- Harrington, J. C.
1935 Metropolis expedition: Examinations at the Kincaid site. University of Chicago Field School papers. Manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.

1936 Metropolis expedition, 1935. University of Chicago Field School Papers. Manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.
- Hawley, Florence
1941 Tree-ring analysis and dating in the Mississippi Drainage. University of Chicago Publications in Anthropology, Occasional Papers no. 2. University of Chicago Press.
- Historical Committee for the Centennial
1939 History of Hardin County, Illinois.
- Holmes, W. H.
1919 Handbook of aboriginal American antiquities. Bureau of American Ethnology Bulletin 40, pp. 187-94.
- Huston, Jon S.
1972 The vascular flora of Horseshoe Lake, Alexander County, Illinois. M.A. thesis, Department of Botany, Southern Illinois University, Carbondale.
- Jennings, Jesse
1968 Prehistory of North America. McGraw-Hill, New York.
- King, Fain W.
1936 Archaeology of western Kentucky. Transactions of the Illinois State Academy of Science 29(2):35-38.
- Knoblock, B.
1967 Some comments on a two-holed bannerstone from southern Illinois. Central States Archaeological Journal 14:710.
- Kuttruff, L. Carl
1970a Report on preliminary site examination at the Highwater site (Mx-69, SIU 25C4-8) on FAI 24, Massac County, Illinois. Southern Illinois University Museum Archaeological Salvage Report no. 32.

- 1970b Report on preliminary site examination undertaken at the Harvick (Pu-86), Endicott (Pu-85), and Narrow Bridge (Pu-84) sites on FAI 57, Pulaski County, Illinois. Southern Illinois University Museum Archaeological Salvage Report no. 31. Carbondale, Illinois
- 1974 Late Woodland settlement and subsistence in the lower Kaskaskia River Valley. Ph.D. dissertation, Southern Illinois University, Carbondale.
- Lafferty, Robert H., III
1973 An analysis of prehistoric southeastern fortifications. M.A. thesis, Department of Anthropology, Southern Illinois University, Carbondale.
- 1977 The evolution of the Mississippian settlement pattern and exploitative technology in the Black Bottom of southern Illinois. Ph.D. dissertation, Department of Anthropology, Southern Illinois University, Carbondale.
- Lathrop, Stephen D., and Vernon J. Grubisich
1970 Archaeological site survey: Fort Massac project. Manuscript on file, University Museum, Southern Illinois University, Carbondale.
- Lawler, Lucille
1968 Gallatin County, gateway to Illinois. Lucille Lawler. Crossville, Illinois.
- Leighton, N. M., C. E. Ellw, and L. Hornberg
1948 Physiographic divisions of Illinois. Illinois State Geographical Survey, Report of Investigations no. 129.
- Levine, Morton H.
1937 Excavations at the lower Bluff: An account of the archaeology, a study in prehistoric construction, and an essay in archaeological inference. Mimeographed paper for Dr. Phillip Phillips' seminar, The Archaeology of North America. Anthropology 239. Harvard University.
- Lewis, Thomas M. N.
1937 Old Kentucky. Wisconsin Archaeologist 11:41-43.
- 1943 Late horizons in the southeast. In "Recent advances in American Archaeology." Proceedings of the American Philosophical Society 86(2): 304-12.

- 1947a The Duck River cache. Tennessee Archaeologist 3(4):54-57.
- 1947b Famous Duck River flint cache returns to Tennessee. Tennessee Archaeologist 3(3):38-41.
- Lewis, T. M. N., and Madeline Kneberg
1942 The Archaic horizon in western Tennessee. University of Tennessee Record Series 28(4).
- 1959 The Archaic culture in the middle south. American Antiquity 25(2):161-183.
- Lewis, Thomas M. N., and Madeline Lewis
1961 Eva, an Archaic site. University of Tennessee Press, Knoxville.
- Luchterhand, K.
1970 Early Archaic projectile points and hunting patterns in the lower Illinois Valley. Illinois Archaeological Survey, Monograph No. 2.
- MacNeish, Richard S.
n.d.a Stratigraphy at Kincaid. Manuscript, Department of Anthropology, University of Chicago.
- n.d.b A ceramic study of foreign sherds found at the Kincaid site. Manuscript, Department of Anthropology, University of Chicago.
- 1944a The establishment of the Lewis Focus. M.A. thesis, University of Chicago.
- 1944b Middle Woodland cultures. Transactions of the Illinois State Academy of Science 37:41-44.
- 1948 The pre-pottery Faulkner site of southern Illinois. American Antiquity 13:243.
- 1973 Early man in America. Readings from Scientific American. W. H. Freeman and Company, San Francisco (editor).
- Martin, Paul S., George Quimby, and Donald Collier
1967 Indians before Columbus: Twenty thousand years of North American prehistory revealed by archaeology. University of Chicago Press.

- Marshall, Richard A.
1968 Report on the central Mississippi Valley section: Pottery types found in the area near the mouth of the Ohio River. Southeastern Archaeological Conference Bulletin no. 8.
- Maxwell, Moreau S.
1947 A summary of Illinois archaeology. The Wisconsin Archaeologist 28(2):19-33.
- 1951 The Woodland cultures of southern Illinois: Archaeological investigations in the Carbondale area. Logan Museum Publications in Anthropology Bulletin no. 7, Beloit, Wisconsin.
- 1952 The archaeology of the lower Ohio Valley. In Archaeology of Eastern United States, edited by James B. Griffin, pp. 172-89. University of Chicago Press, Chicago.
- 1959 The Late Woodland period. Illinois Archaeological Survey Bulletin no. 1, pp. 27-32.
- McDonald, C.
1944 Burials found near cave along Illinois River. Illinois State Archaeological Society Journal, pp. 29-30.
- McGregor, John C.
1959 The Middle Woodland period. Illinois State Archaeological Survey Bulletin no. 1, pp. 21-26.
- McNerney, Mike
1972a Radiocarbon dates from the interior-riverine area midwest of North America. University Museum, Southern Illinois University, Carbondale.
- 1972b Report of phase 2 highway salvage excavations at the J. S. Crabb site (Mx-60), FAI 24. Southern Illinois University Museum Archaeological Salvage Report No. 34. Southern Illinois University, Carbondale.
- Melbye, F. J.
1964a The Cheek no. 3 site. Archaeological Service Report no. 21, University Museum, Southern Illinois University, Carbondale.

- 1964b A preliminary report of five archaeological sites on the Cache River, Illinois. Archaeological Service Report no. 17, University Museum, Southern Illinois University, Carbondale.
- 1964c A preliminary report of the Trespass site. Archaeological Service Report no. 20. University Museum, Southern Illinois University, Carbondale.
- Merwin, Bruce W.
- 1933 Alleged Siouian sites of southern Illinois. Transactions of the Illinois State Academy of Science 25:106.
- 1934 Archaeological reconnaissance work in southern Illinois, 1933. Transactions of the Illinois State Academy of Science 27:53.
- 1935 Archaeology in southern Illinois. Transactions of the Illinois State Academy of Science 28:29-80.
- Miner, Horace
- 1937 1936 Metropolis expedition: Materials at the Kincaid site. University of Chicago Field School papers. Manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.
- 1939 1938 Metropolis expedition. University of Chicago Field School papers. Manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.
- Mohlenbrock, R. H., and J. W. Voigt
- 1959 A flora of southern Illinois. Southern Illinois University Press, Carbondale.
- Moorehead, W. K.
- 1906 Explorations at the mouth of the Wabash. Phillips Academy Bulletin 3:62-86.
- Merse, G. W.
- 1881 An inscribed fragment of pottery from a mound in Illinois. The American Antiquarian 3:331-32.
- Moyers, W. N.
- 1931 A story of southern Illinois, the soldiers' reservation, including the Indians, French traders, and some early Americans. Journal of the Illinois State Historical Society 24:26-104.

- Muller, Jon
 in press a The Kincaid system: Mississippian settlement in the
 environs of a large site. In Mississippian Settlement
 Systems, edited by Bruce D. Smith. Academic Press, New York.
-
- in press b Mississippi population and organization: Kincaid locality
 research, 1970-1975. Illinois Archaeological Society Bulletin.
-
- in press c The southeastern United States. In Ancient Americans,
 edited by Jesse Jennings.
- Muller, Jon, R. H. Lafferty, J. Rudolph, and C. Blakeman
 1975 Kincaid environs archaeology. Southeastern Archaeological
 Conference Newsletter, Bulletin 18, pp. 148-57.
- Muller, Jon, and Frank Rackerby
 in press The Kincaid site and its environs. Illinois Archaeological
 Survey, Bulletin.
- Muller, Jon D., Phil Weigand et al.
 1969 Current research in the Black Bottom, Ohio, River, Illinois.
Southeastern Archaeological Conference Newsletter 13:17.
- Munson, Cheryl, William F. Limp, and David F. Barton
 1977 Cultural resources of the Ohio River valley in Indiana,
 preliminary draft. Prepared under contract DACW 69-77-M-0722
 for the U. S. Army Corps of Engineers, Huntington District.
- Munson, P. J.
 1966 Midwestern dendrochronology and archaeological dating.
Transactions of the Illinois State Academy of Science 59:
 241-45.
- Neumann, Georg K.
 1951 The Hopewellian culture in the lower Wabash Valley. Illinois
 State Archaeological Society Journal N.S. vol. 1:113-18.
-
- 1952 Hopewellian sites in the lower Wabash Valley. In Hopewellian
 Communities in Illinois, edited by Thorne Deuel. Illinois
 State Museum, Springfield.
- Orr, Kenneth G.
 n.d.a Artifact sequence at Kincaid. University of Chicago Field
 School Papers. Manuscript on file, Department of Anthropology,
 Southern Illinois University, Carbondale.
-
- n.d.b Culture changes at Kincaid, a study in statistical analysis.
 Ph.D. dissertation, Department of Anthropology, University of
 Chicago.

- 1943 Analysis of nonceramic artifacts from Kincaid. Manuscript, Department of Anthropology, University of Chicago.
- 1944 Kincaid architecture. University of Chicago Field School Papers. Manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.
- 1951 Change at Kincaid: A study of cultural dynamics. In Kincaid, A prehistoric Illinois metropolis, by Fay-Cooper Cole et al., pp. 293-359. University of Chicago Press, Chicago.
- Page, Oliver J.
1900 History of Massac County, with life sketches and portraits. Metropolis, Illinois.
- Parks, W. D.
1975 Soil survey of Pope, Hardin and Massac counties, Illinois. United States Department of Agriculture, Soil Conservation Service and Forest Service, Washington.
- Parks, W. D., and Fehrenbacher
1968 Soil survey, Pulaski and Alexander counties, Illinois. United States Department of Agriculture, Soil Conservation Service, Washington.
- Parmalee, Paul
1959 Use of mammalian skulls and mandibles by prehistoric Indians of Illinois. Transactions of the Illinois State Academy of Science 52:85-95.
- Peithman, Irvin
1935 Bannerstones and related ceremonial objects from southern Illinois. Transactions of the Illinois State Academy of Science 28:79-94.
- 1939 Evidences of Early Woodland cultures at Chalk Bluff Rock Shelter. American Antiquity 4:268-72.
- 1947 Recent Hopewell finds in southern Illinois. Illinois State Archaeological Society Journal 5:51-53.
- 1951a The archaeology of southern Illinois, part I. Illinois State Archaeological Society Journal 1:119-24.
- 1951b The archaeology of southern Illinois, part II. Illinois State Archaeological Society Journal 2:36.

- 1952 Pictographs and petroglyphs in southern Illinois. Illinois State Archaeological Society Journal 2:91-94 N.S.
- 1953 A preliminary report on salt-making and pottery manufacture at a prehistoric site in Gallatin County, Illinois. Illinois State Archaeological Society Journal 3:66-75.
- 1955a Echoes of the red man; An archaeological and cultural survey of the Indians of southern Illinois. Exposition Press, New York.
- 1955b First use of natural resources in southern Illinois. Central States Archaeological Journal 1:86-97. From "Echoes of the Redman."
- 1964 Indians of Southern Illinois. Charles C. Thomas, Springfield.
- Peithman, Irvin, and Thomas F. Barton
1938 Evidences of Early Woodland culture at Chalk Bluff Rock Shelter. Transactions of the Illinois State Academy of Science 31(2):74-76.
- Phillips, Philip
1970 Archaeological survey in the lower Yazoo Basin, Mississippi, 1949-1955. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 60, Cambridge.
- Phillips, Philip, James A. Ford, and James B. Griffin
1951 Archaeological survey in the lower Mississippi Alluvial Valley, 1940-1947. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 25, Cambridge.
- Phillips W. A.
1900 Aborigines quarries and shops at Mill Creek, Illinois. American Anthropologist 2:37-52.
- Prufer, Olaf
1964 The Hopewell cult. Scientific American, December 1964.
- Rackerby, Frank, and Ronald E. Pulcher
1975 An archaeological survey of two Shawnee National Forest timber management compartments (Pope and Hardin counties, Illinois). Archaeological Service Report no. 42. University Museum, Southern Illinois University, Carbondale.

Rau, Charles

- 1867 Indian pottery. Annual Report of the Smithsonian Institute for 1866, p. 353.

Riordan, Robert

- 1975 Ceramics and chronology: Mississippian settlement in the Black Bottom, southern Illinois. Ph.D. dissertation, Department of Anthropology, Southern Illinois University, Carbondale.

Rolingson, M. A., and D. W. Schwartz

- 1966 Late Paleoindian and Early Archaic manifestations in western Kentucky. The University of Kentucky, Studies in Anthropology, no. 1.

Ross, Charles A.

- 1963 Structural framework of southernmost Illinois. Illinois State Geological Survey, Circular 351.

-
- 1964 Geology of Paducah and Smithland quadrangles in Illinois. Illinois State Geological Survey, Circular 360.

Rudolph, James L.

- 1975 An archaeological survey in the Bay Creek watershed (Pope and Johnson counties, Illinois). Archaeological Service Report no. 45. University Museum, Southern Illinois University, Carbondale.

Sahlins, Marshall D.

- 1972 Stone age economics. Aldine, Chicago.

Santeford, Lawrence

- 1977 Archaeological reconnaissance at the Saline River across Illinois Route 1 in Gallatin County, Illinois. Archaeological Service Report no. 51. University Museum, Southern Illinois University, Carbondale.

Schwartz, D. W., and T. Sloan

- 1958 Survey of the archaeological resources of the Barkley Reservoir, Kentucky. Project of the inter-agency archaeological and paleontological salvage program (manuscript). The University of Kentucky, Lexington.

Sears, William H.

- 1948 What is the Archaic? American Antiquity 14:122-24.

-
- 1964 The southeastern United States. In Prehistoric Man in the New World, edited by Jesse D. Jennings and Edward Norbeck, pp. 259-90. University of Chicago Press, Chicago.

- 1968 The state and settlement patterns in the New World. In Settlement Archaeology, edited by K. C. Chang, pp. 134-53. National Press Books, Palo Alto.
- Sellers, George Ercoll
1877 Aboriginal pottery of the Salt Springs, Illinois. Popular Science Monthly 11:573-85.
- 1886 Observations on stone-chipping. Annual Report of the Smithsonian Institute for 1885, p. 887.
- Service, Elman R.
1975 Origin of the state and civilization: The process of cultural evolution. W. W. Norton and Company, New York.
- Smith, Willie
1961 The southern Illinois Hopewell peoples. Central States Archaeological Journal 8(2):62-76.
- Spoehr, Alexander
1937 1936 Metropolis exposition: Excavations at the Kincaid site. University of Chicago Field School papers. Manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.
- Stewart, T. Dale
1973 The people of America. Charles Scribner's Sons, New York.
- Strahler, Arthur N.
1967 Physical geography, second edition. John Wiley and Sons, New York.
- Streuver, Stuart
1964 The Hopewell interaction sphere in riverine western Great Lakes culture history. In Hopewellian Studies, edited by Joseph L. Caldwell and Robert R. Hall. Illinois State Museum Scientific Papers, Vol. XII, pp. 85-106.
- Thomas, Cyrus
1883 Museum explorations in southern Illinois. Transactions of the Anthropological Society of Washington 2:39-40.
- 1891 Catalogue of prehistoric works east of the Rocky Mountains. Bureau of American Ethnology, Bulletin 12.
- 1894 Report on the mound exploration of the Bureau of Ethnology. Twelfth Annual Report of the American Bureau of Ethnology, p. 161.

- United States Government Land Surveys
n.d. Illinois Field Notes, Vol. 108. Illinois State Archives, Springfield; also National Archives, Washington.
- Voigt, J. W., and P. H. Mohlenbrock
1964 Plant communities of southern Illinois. Southern Illinois University Press, Carbondale.
- Wallace, Donald L., and J. B. Fehrenbacher
1969 Soil Survey of Gallatin County, Illinois. United States Department of Agriculture, Soil Conservation Service, Washington.
- Waring, Antonio J., Jr.
1968 The earliest ceramic remains: Fiber-tempered wares (1940-1942), paper no. 17A. In The Waring Papers, edited by Stephen Williams, pp. 247-52. Papers of the Peabody Museum of Archaeology and Anthropology, Vol. 58, Cambridge.
- Waring, A. J., Jr., and Preston Holder
1945 A prehistoric ceremonial complex in the southeastern United States. American Anthropologist 47 (1):1-34.
- Webb, W. S.
1950 The Carlson Annis mound. University of Kentucky Reports on Anthropology, Vol. 7, no. 4.
- 1951 The Parrish Village site. The University of Kentucky Reports on Anthropology, Vol. 7, no. 6.
- 1952 The Jonathan Creek Village. The Department of Anthropology, The University of Kentucky Reports on Anthropology, Vol. 8, no. 1.
- Webb, W. S., and W. D. Funkhouser
1929 The Williams site. The University of Kentucky Reports on Archaeology and Anthropology, Vol. 1, no. 1.
- 1931 The Tolu site in Crittenden County. University of Kentucky Reports on Archaeology and Anthropology, Vol. 1, no. 5.
- 1932 Archaeological survey of Kentucky. The University of Kentucky Reports on Archaeology and Anthropology, Vol. 2.
- Weigand, Phil, and Jon Muller
in press Preliminary report on investigations at the Kincaid site. Illinois Archaeological Survey, Bulletin.

- Whiting, Alfred F.
1939 Ethnobotany of Kincaid. University of Chicago Field School Papers. Manuscript, Department of Anthropology, Southern Illinois University, Carbondale.
- Wilder, Charles G.
1940 Kincaid textiles. University of Chicago Field School Papers. Manuscript on file, Department of Anthropology, Southern Illinois University, Carbondale.
- 1951 Kincaid textiles. In Kincaid: A prehistoric Illinois metropolis, by Fay-Cooper Cole et al., pp. 366-76. University of Chicago Press, Chicago.
- Willey, Gordon R.
1966 An introduction to American archaeology, Volume I: North and Middle America. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.
- Willey, Gordon R., and Philip Phillips
1958 Method and theory in American archaeology. University of Chicago Press, Chicago.
- Williams, Stephen
1954 An archaeological study of the Mississippian culture in south-east Missouri. Ph.D. dissertation, Department of Anthropology, Yale University.
- Williams, Stephen, and J. B. Stoltman
1965 An outline of southeastern United States prehistory with particular emphasis on the Paleo-Indian era. In The Quarterly of the United States, edited by H. E. Wright and D. G. Frey. Princeton University Press, Princeton.
- Willis, Roger K.
1941 The Baumer Focus. Society for American Archaeology, Notebook II, p. 28.
- Winters, Howard
1959a The Paleo Indian period. Illinois Archaeological Survey, Bulletin no. 1, pp. 5-8.
- 1959b The Archaic period. Illinois State Archaeological Survey, Bulletin no. 1, pp. 9-16.
- 1962 Distribution of patterns of fluted points in southern Illinois. Council for Illinois Archaeology, Report no. 10. Illinois State Museum, Springfield.

- 1967 An archaeological survey of the lower Wabash Valley in Illinois. Illinois State Museum, Reports of Investigations, no. 10. Springfield.
- 1969 The Riverton Culture. Illinois State Museum, Reports of Investigations, no. 13, Springfield.
- Wolf, D. J.
1965 A summary report on the Robert and Roosevelt no. 1 sites. Archaeological Service Report no. 24, University Museum, Southern Illinois University, Carbondale.
- Wormington, H. M.
1957 Ancient man in North America, fourth edition. The Denver Museum of Natural History, Popular Series, no. 4.
- Yarnell, Richard A.
1976 Early plant husbandry in eastern North America. In Culture Change and Continuity: Essays in Honor of James Bennett Griffin, edited by Charles E. Cleland, pp. 265-72. Academic Press, New York.

Index to the Archaeological Bibliography

General References on Ohio Valley Archaeology

Anonymous 1943
 Black 1967
 Brown n.d.
 Caldwell 1958, 1959
 Chard 1961
 Cole 1943
 Deuel 1935
 Dragoo 1976
 Ford 1969
 Ford and Willey 1941
 Ford, Richard 1974
 Gorenstein 1975
 Griffin 1946, 1952a, 1952b 1967
 Haag 1942
 Jennings 1968
 Lafferty 1973
 MacNeish 1944b, 1973
 Martin, Quimby, and Collier 1967
 Maxwell 1959
 McGregor 1959
 Muller, in press
 Phillips, P. 1970
 Phillips, Ford, and Griffin 1951
 Prufer 1964
 Sears 1948, 1964, 1968
 Stewart 1973
 Thomas 1891, 1894
 Waring and Holder 1945
 Willey 1966
 Willey and Phillips 1958
 Williams and Stoltmann 1965

Illinois

General References:

Andrews 1932
 Bauxer 1957a, 1957b
 Beeson 1953
 Bennett 1944c
 Bennett and Maxwell 1942
 Biggs 1952
 Clay 1963, 1976
 Coe and Fischer 1959
 Cox 1933
 Estes 1969

Illinois General References (continued)

Faulkner 1975
Ferguson, Broster, Ward, and Cambron 1972
Florio 1960
Fowke 1928
Fowler 1959
Funkhouse and Webb 1931
Hanson 1970
Hawley 1941
Holmer 1919
King 1936
Kuttruff 1974
Lewis 1932, 1943, 1947_a, 1947_b
Lewis and Kneberg 1942, 1959
Lewis and Lewis 1961
Luchterhand 1970
MacNeish 1944
Marshall 1968
Maxwell 1947, 1951, 1952, 1959
McNerney 1972_a
Merwin 1933, 1934, 1935
Moyers 1921
Newmann 1951, 1952
Peithman 1935, 1939, 1947, 1951_a, 1951_b, 1955_a, 1955_b, 1964
Peithman and Barton 1938
Phillips, W. A. 1900
Rolinson and Schwartz 1966
Schwartz and Sloan 1958
Smith 1961
Thomas 1883
Webb 1950, 1951, 1952
Willis 1941
Winters 1959_a, 1959_b, 1962, 1967, 1969

Alexander County

Adams 1948
Allen 1954
Morse 1881

Gallatin County

Blasingham 1972
Bonnell 1928
Foster 1973

Gallatin County (continued)

Grogan 1949
 Lawler 1968
 Moorehead 1906
 Peithman 1953
 Rau 1867
 Santeford 1977
 Sellers 1877, 1886

Hardin County

Anonymous 1959
 Crane 1958
 Fowler 1956, 1957a, 1957b
 Grogan 1954, 1955
 Historical Committee for the Centennial 1939
 McDonald 1944
 Parmalee 1959
 Rackerby and Pulcher 1975

Massac County

Anonymous 1941
 Baerreis 1952
 Bailey 1942
 Bell 1943, 1946, 1951, 1953
 Bennett n.d.a, n.d.b, n.d.c, 1940a, 1940b, 1940c, 1941a, 1941b, 1944a,
 1944b, 1951
 Black 1939
 Blakeman 1974
 Brieschke 1971a, 1971b
 Butler 1972, 1977
 Caldwell 1937
 Cole 1935a, 1935b, 1935c, 1940, 1941a, 1941b, 1941c
 Cole et al. 1951
 Crane and Griffin 1960
 Davy 1976, 1977
 Dearing 1966
 Deuel 1938a, 1938b
 Deuel and Titterington 1937
 Emerson n.d., 1943
 Fowler 1966
 Gilreath 1976
 Hall 1945
 Harrington 1935, 1936
 Kuttruff 1970
 Lathrop and Grubisich 1970
 Levine 1955

Massac County (continued)

MacNeish n.d.a, n.d.b, 1944a, 1948
 Miner 1937, 1939
 McNerney 1972
 Muller, in press a, in press b
 Muller, Lafferty, Rudolph, and Blakeman 1975
 Muller and Rackerby, in press
 Muller and Weigand et al. 1969
 Munson 1966
 Orr n.d.a, n.d.b, 1943, 1944, 1951
 Page 1900
 Riordan 1975
 Spoehr 1937
 Weigand and Muller, in press
 Whiting 1939
 Wilder 1940, 1951

Pope County

Dearinger 1956, 1963
 Peithman 1952
 Rackerby and Pulcher 1975
 Rudolph 1975

Note: The large Kincaid site straddles Pope and Massac counties.
 References concerning this site are listed under Massac County
 since a larger part of the site is in Massac County.

Pulaski County

Davis 1967
 Fowler 1960
 Knoblock 1967
 Kuttruff 1970
 Melbye 1964a, 1964b
 Wolf 1965

Historical Sources

General References on Ohio Valley History

Allen, John W.

1963 Legends and lore of southern Illinois. Southern Illinois University Area Services Division, Carbondale.

1968 It happened in southern Illinois. Southern Illinois University Area Services Division, Carbondale.

Alvord, Clarence W.

1920 The Illinois country, 1673-1818. Illinois Centennial Commission, Springfield.

Alvord, Clarence W., and Clarence Carter (eds.)

1915 The critical period, 1763-1765. Springfield.

Anonymous

1903 The army led by Colonel George Rogers Clark in the conquest of the Illinois, 1778-1830. Transactions of the Illinois State Historical Society, VIII.

Baldwin, Leland D.

1941 The keelboat age on western waters. University of Pittsburgh Press, Pittsburgh.

Banta, R. E.

1949 Rivers of America -- the Ohio. Rinehart, New York.

Bogges, Arthur Clinton

1908 The settlement of Illinois 1778-1830. Chicago Historical Society, Chicago.

Breese, Sidney

1884 The early history of Illinois. E. B. Myers and Co., Chicago.

Buck, Solon J.

1918 Illinois in 1818. The Illinois Centennial Commission, Springfield.

Caldwell, Norman W.

1941 The French in the Mississippi Valley. University of Illinois Press, Urbana.

Clayton, John (ed.)

1970 The Illinois fact book and historical almanac. Southern Illinois University Press, Carbondale.

- Cole, Arthur C.
 1922 The era of the Civil War, 1848-1870. Illinois Centennial Commission, Chicago.
- Donnelly, Joseph P.
 1968 Jacques Marquette, S. J., 1637-1675. Loyola University Press, Chicago.
- Havighurst, Walter
 1952 George Rogers Clark, soldier of the West. McGraw-Hill, New York.
- 1962 The Heartland: Ohio, Indiana, Illinois. Harper and Row, New York.
- 1970 River to the west, three centuries of the Ohio. Putnam, New York.
- Horell, C. William, Henry Dan Piper, and John W. Voigt
 1973 Land between the rivers. Southern Illinois University Press, Carbondale.
- Illinois Secretary of State
 1974 Counties of Illinois, their origin and evolution. Springfield.
- Keller, William E. (ed.)
 1968 Illinois place names. Illinois State Historical Society, Springfield.
- Klein, Benjamin, and Eleanor Klein
 1950 The Ohio River handbook and picture album. Young and Klein, Cincinnati.
- Koeper, Frederick
 1968 Illinois architecture from territorial times to the present. Chicago.
- Lansden, John M.
 1910 A history of the City of Cairo, Illinois. R. R. Donnelly and Sons, Chicago.
- McDermott, John Francis (ed.)
 1965 The French in the Mississippi Valley. University of Illinois Press, Urbana.
- Moses, John
 1889 Illinois historical and statistical, volumes I and II. Fergus Printing Co., Chicago.

- Parkman, Francis
1869 La Salle and the discoverer of the Great West. Boston.
- Parrish, Randall
1907 Historic Illinois. A. C. McClury and Co., Chicago.
- Pease, Theodore Calvin
1922 The frontier state 1818-1848. Illinois Centennial Commission, Chicago.
- Peck, John Mason
1834 A gazeteer of Illinois. Jacksonville.
- Pratt, Fletcher
1956 The Civil War on western waters: story of Union and Confederate river navies. Holt, Rhinehart, and Winston, New York.
- Reynolds, John
1886 The pioneer history of Illinois, second edition. Fergus Printing Co., Chicago.
- Roskam, Edwin, and Louise Roskam
1948 Towboat river. Duell, Sloan, and Pearce, New York.
- Simon, John Y. (ed.)
1967 The papers of Ulysses S. Grant. Southern Illinois University Press, Carbondale.
- Smith, George W.
1912 History of southern Illinois, volumes I, II, and III. The Lewis Publishing Co., Chicago.
- Thwaites, Reuben Gold
1900 Afloat on the Ohio. Doubleday and McClure, New York.
- Walton, Clyde C. (ed.)
1970 An Illinois reader. Northern Illinois University Press, DeKalb.

Archival

- Anonymous
n.d. Published guides to manuscript and archival collections in Illinois: a preliminary checklist. Mimeographed.
- Illinois Department of Conservation
n.d. Records of the Division of State Historical sites. Springfield, Illinois.

- Illinois Historic Landmarks Survey
1973 Inventory of historic landmarks in Alexander County.
- Illinois Historic Landmarks Survey
1973 Inventory of historic landmarks in Gallatin County.
- Illinois Historic Landmarks Survey
1973 Inventory of historic landmarks in Hardin County.
- Illinois Historic Landmarks Survey
1973 Inventory of historic landmarks in Massac County.
- Illinois Historic Landmarks Survey
1973 Inventory of historic landmarks in Pope County.
- Illinois Historic Landmarks Survey
1973 Inventory of historic landmarks in Pulaski County.
- Illinois Historic Structures Survey
1975 Inventory of historic structures in Alexander County.
- Illinois Historic Structures Survey
1975 Inventory of historic structures in Gallatin County.
- Illinois Historic Structures Survey
1975 Inventory of historic structures in Hardin County.
- Illinois Historic Structures Survey
1975 Inventory of historic structures in Massac County.
- Illinois Historic Structures Survey
1975 Inventory of historic structures in Pope County.
- Illinois Historic Structures Survey
1975 Inventory of historic structures in Pulaski County.
- Illinois State Archives, Springfield, Illinois. (WPA Records Survey)
- Illinois State Historical Library, Springfield, Illinois.

Journals

Egyptian Key, 1943-51 (discontinued).

Illinois State Historical Society Journal.

Outdoor Illinois.

Southern Illinois Historical Society Journal, volumes 1-7, 1944-51
(discontinued).

Transactions of the Illinois State Historical Society.

Illinois

Alexander County

Perrin, William Henry

- 1883 History of Alexander, Union, and Pulaski counties, Illinois.
O. L. Baskin and Co., Chicago.

Gallatin County

Anonymous

- 1887 History of Gallatin, Saline, Hamilton, Franklin, and Williamson counties, Illinois.

Lawler, Lucille

- 1968 Gallatin County -- gateway to Illinois. Crossville, Indiana.

Hardin County

Anonymous

- 1893 Biographical review of Johnson, Massac, Pope, and Hardin counties, Illinois. Biographical Publishing Co., Chicago.

Hall, Ruby F.

- 1970 History of Hardin County, Illinois. Carbondale, Illinois.

Historical Committee for the Centennial

- 1939 History of Hardin County, Hardin County, Illinois.

Pope County

Allen, John W.

- 1949 Pope County notes. Southern Illinois University, Carbondale.

Anonymous

- 1893 Biographic review of Johnson, Massac, Pope, and Hardin counties, Illinois. Biographic Publishing Co., Chicago.

Massac County

Anonymous

- 1893 Biographic review of Johnson, Massac, Pope, and Hardin counties, Illinois. Biographic Publishing Co., Chicago.

May, George W.

- 1955 History of Massac County, Illinois. Wagoner Printing Co., Galesburg, Illinois.

1964 Massac pilgrimage. Edwards Brothers, Ann Arbor, Michigan.

Page, O. J.

1900 History of Massac County.

Pulaski County

Anonymous

1943 Moyer's brief history of Pulaski County. Mound City, Illinois.

Perrin, William H.

1883 History of Alexander, Union, and Pulaski counties, Illinois.
O. L. Baskin, Chicago.

APPENDIX A

ARCHAEOLOGICAL SITES WITHIN A KILOMETER
OF THE OHIO RIVER IN ILLINOIS

List of Codes

1. Site Types

Village = V
 Camp = C
 Farmstead = F
 Town = T
 Earth Mound = EM
 Stone Mound = SM
 Platform Mound = PM
 Stone Box Graves = SBC
 Burial = B

2. Periods

Paleoindian = PI
 Archaic = A
 Early/Middle Woodland = E/MW
 Late Woodland = LW
 Late Prehistoric (Mississippian) = M
 Historic Indian = HI
 No Period Assigned = NPA

3. Cultures

Archaic

Faulkner = F

Early/Middle Woodland

Baumer = B
 Crab Orchard = CO
 Wabash Valley Hopewell = WWH

Late Woodland

Lewis = L
 Duffy = D
 Yankeetown = Y

Late Prehistoric

Kincaid = K
 Angel = A
 Caborn-Welborn = C-W
 Cairo Lowland = CL

Historic Indian

Shawnee = S
 Unidentified Historic Indian = HI

4. Site Conditions
- Excavated = E
 - Tested = T
 - Surface Collected = SC
 - Controlled Surface Collected = CSC
 - Destroyed = D
5. National Register Status (NR)
- On National Register = NR
 - Nomination Pending = P
 - Eligible = E
 - Potentially Eligible = PE
 - Insufficient Data = ID
6. Vegetation Zone (veg.)
- Cane Bottom Forest = CBF
 - Post Oak Flats = POF
 - Post Oak Barrens = POB
 - Moist Woods = MW
 - Upland Forest = UF
 - Mesic Upland Forest = MUF
 - Upland Stream Bottom = USB
 - Wet Woods = WW
 - Deep Swamp = DS
7. Location of Records
- Illinois Archaeological Survey = IAS
 - Southern Illinois University Museum = SIUM
 - Southern Illinois University Department of Anthropology = SIUDA

Appendix A
Archaeological Sites Within a Kilometer of the Ohio River Bank by Five-River-Mile Groups

SIUM#	SIUDAF	UC#	IAS#	Type	Periods	Cultura	Meters Size			Elev.	Depth	Cond.	Mat.	Reg.	Soil	Veget.	Records
							From Bank	M ² in 100's	in								
River Miles 848-852:																	
2582-06			G-15	EM,V	E/MW	WVH	610	324	350			E	306	CBF		IAS, SIUM	
2582-39			G-107	C	A		1000	40	350		SC	PE	306	CBF		IAS, SIUM	
2582-40			G-108	C	A		1000	40	350		SC	PE	306	CBF		IAS, SIUM	
2582-10			G-20	PM	M		255	205	350		SC	E	284	CBF		IAS, SIUM	
2582-11			G-21	PM	M		300	345				E	306	CBF		IAS, SIUM	
2582-28			G-67	C	E/MW		1000	20	330		SC	PE	306	CBF		IAS, SIUM	
UTM square group: 16SDS: 0884, 0984, 0783, 0883, 0983, 0782, 0882, 0781, 0881, 0780, 0880, 0679, 0779, 0578, 0678, 0778, 0577, 0677.																	
River Miles 853-857:																	
2584-62			G-5	EM	HI	S	115		350			E	284	CBF		IAS, SIUM	
2584-20			G-54	V			800	205	350			ID	462a	MW		IAS, SIUM	
2484-22			G-55	V			370	41	340		SC	ID	426	MW		IAS, SIUM	
UTM square group: 16SDS: 0577, 0677, 0376, 0476, 0576, 0676, 0075, 0175, 0275, 0375, 0475, 0074, 0174, 0274, 0374, 0073, 0173, 0072. 16SCS: 9974, 9973, 9972.																	
River Miles 858-862:																	
2584-08			G-12				510		360		SC	ID	208	MW		IAS, SIUM	
2584-11			G-27	C	M		15	20	340		SC	PE	306	CBF		IAS, SIUM	
2584-55			G-117	C	A		1000	82	350		SC	PE	461a	MW		IAS, SIUM	
2584-58			G-120	C	A		1000	41	350		SC	PE	461a	MW		IAS, SIUM	
2584-54			G-116	C	A		750	350				ID	284	CBF		IAS, SIUM	
2584-37			G-77	V	E/MW		915	205	350		SC	E	462	MW		IAS, SIUM	
2584-61			G-123	C	A		1000	82	350		SC	E	461b	MW		IAS, SIUM	
2584-53			G-114	C	A		450	350				PE	132b	MW		IAS, SIUM	
2584-52			G-115	C	A		845	350				PE	134c	MW		IAS, SIUM	
2584-57			G-119	C	A		1000	20	360		SC	PE	462c	MW		IAS, SIUM	
2584-13			G-31	C			385	410	350		SC	ID	175b	CBF		IAS, SIUM	
2584-14			G-30	C			1000	41	350		SC	ID	131c	MW		IAS, SIUM	
UTM square group: 16SCS: 9972, 9771, 9871, 9871, 9971, 9770, 9870, 9669, 9769, 9869, 9668, 9768, 9667, 9767, 9666, 9766, 9765, 9665, 9764.																	
River Miles 863-867:																	
2584-39			G-71	C	E/MW		780	41	340		SC	PE	306	CBF		IAS, SIUM	
2584-48			G-85	C	E/MW		50	123	340		SC	PE	306	CBF		IAS, SIUM	
2584-44			G-89	C	A		600	20	350		SC	PE	306	CBF		IAS, SIUM	
UTM square group: 16SCS: 9664, 9764, 9763, 9863, 9762, 9862, 9962, 9861, 9961, 9860, 9960, 9859, 9959, 9858, 9957. 16SDS: 0059, 0058, 0158, 0057, 0157.																	

Appendix A (Continued)

SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters Size From Bank	M ² in 100' s	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
<u>River Miles 868-872:</u> no sites recorded for this section.															
UTM square group: 16SDS: 0057, 0157, 0056, 0156, 0256, 0155, 0255, 0355, 0454, 0253, 0353, 0453, 0352, 0452, 0451, 0551. 16SCS: 9957.															
<u>River Miles 873-877:</u> no sites recorded in this section.															
UTM square group: 16SDS: 0451, 0551, 0450, 0550, 0349, 0449, 0549, 0148, 0248, 0348, 0448, 0147, 0247, 0347, 0451.															
<u>River Miles 878-882:</u>															
25D2-358							100	350	350			ID	597	CBF	SIUM
25D2-359							75	350	350			ID	308	MUF	SIUM
25D2-356							45	450	450			ID	308	MUF	SIUM
25D2-357							50	400	400			ID	598f	MUF	SIUM
UTM square group: 16SDS: 0048, 0148, 0047, 0147. 16SCS: 9347, 9447, 9547, 9647, 9747, 9847, 9947, 9346, 9446, 9546, 9646.															
<u>River Miles 883-887:</u>															
25D2-01			Hn-2	V	LW		35	410	340			E	308	MUF	IAS, SIUM
25D2-06				SM	LW		190	54	490			E	599	MUF	SIUM
25D2-07				V,SRG	E/MW,M		100	360	360			E	131b	MUF	SIUM
25D1-29							500	340	340			ID	308	MUF	IAS, SIUM
25D1-30			Hn-18				460	340	340			ID	382	USB	IAS, SIUM
25D1-19			Hn-19				50	330	330			ID	600	CBF	IAS, SIUM
25D1-31			Hn-20				50	340	340			ID	461b	MW	IAS, SIUM
25D1-32			Hn-21				45	340	340			ID	288	USB	IAS, SIUM
25D1-34			Hn-23				45	340	340			ID	333	USB	IAS, SIUM
25D1-35			Hn-24				40	340	340			ID	333	USB	IAS, SIUM
UTM square group: 16SCS: 8847, 8947, 9047, 9147, 9247, 9347, 8546, 8646, 8746, 8846, 8946, 9046, 9146, 9246, 9346, 8545, 8645, 8745.															
<u>River Miles 888-892:</u>															
25D1-23			Hn-12				60	350	350			ID	131d	UF	IAS, SIUM
25D1-24			Hn-13				55	360	360			ID	308	MUF	IAS, SIUM
25D1-01			Hn-1	PM	M		120	1435	370		T	P	308	MUF	IAS, SIUM
25D1-27			Hn-16				80	360	360			ID	463b	MW	IAS, SIUM
25D1-28			Hn-17				25	340	340			ID	597	CBF	IAS, SIUM
25D1-33			Hn-22				50	340	340		D	ID	462b	MW	IAS, SIUM
25D1-25			Hn-14				70	370	370			ID	308	MUF	IAS, SIUM
25D1-26			Hn-15				100	400	400			ID	308	MUF	IAS, SIUM
UTM square group: 16SCS: 8446, 8546, 8245, 8345, 8445, 8545, 8144, 8244, 8344, 8043, 8143, 8243, 8343, 8042, 8142, 7941, 8041, 8141, 7940, 8040.															

Appendix A (continued)

SIUM#	Site Number SIUDAF	UC#	IAS#	Type	Periods	Culture	Meters Size From Bank M ² in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Vegetation	Records
<u>River Miles 893-897:</u>														
25D1-09			Pp-106				110	430			ID	214c	UF	IAS, SIUM
25D1-17			Hn-6				115	330			ID	600	CBF	IAS, SIUM
25D1-18			Hn-7				450	340			ID	597	CBF	IAS, SIUM
25D1-19			Hn-8				700	350			ID	463	MW	IAS, SIUM
25D1-20			Hn-9				195	340			ID	597	CBF	IAS, SIUM
25D1-21			Hn-10				330	340			ID	597	CBF	IAS, SIUM
UTM square group: 16SCS: 7243, 7343, 7443, 7543, 7643, 7743, 7843, 7943, 7042, 7142, 7242, 7342, 7442, 7542, 7642, 7742, 7842, 7241, 7641, 7741, 7841, 7941, 7840, 7940.														
<u>River Miles 898-902:</u> no sites recorded in this section.														
UTM square group: 16SCS: 7042, 7142, 7242, 6941, 7041, 7141, 7241, 6840, 6940, 7040, 6839, 6939, 7039, 6838, 6939, 6737, 6837, 6736, 6836, 6735, 6835.														
<u>River Miles 903-907:</u>														
25C2-93			Pp-95		M	K	325	340			ID	462b	MW	IAS, SIUM
25C2-85			Pp-97	PM			115	355			E	462b	MW	IAS, SIUM
25C2-86			Pp-96	C	A,M	F,K	100	345			E	461a	MW	IAS, SIUM
UTM square group: 16SCS: 6735, 6835, 6734, 6834, 6633, 6733, 6833, 6632, 6732, 6531, 6631, 6731, 6630, 6730, 6529, 6629, 6428, 6528, 6628														
<u>River Miles 908-912:</u>														
25C2-44			Pp-45		M	K	160	440			ID	308	POB	IAS, SIUM
25C2-135			Pp-157	SBG			75	340			E	462b	MW	IAS, SIUM
25C2-63			Pp-100	V	A,E/MW,M	F,B,K	975	360	1230		E	175b	CBF	IAS, SIUM
25C2-45			Pp-74				500	340	41		ID	461b	MW	IAS, SIUM
25D2-65			Pp-98	V	A	F	280	340		SC	E	462b	MW	IAS, SIUM
25C2-155			Pp-179	C	A	F	995	350	63		E	461c	MW	IAS, SIUM
25C2-04			Pp-4	C	A	F	540	340			E	461a	MW	IAS, SIUM
25C2-46			Pp-73				955	340			ID	460	MW	IAS, SIUM
26 VI 75-5				V			290	330		SC	ID	462	MW	SIUDA
26 VI 75-6					M	K	195	330		SC	E	462	MW	SIUDA
26 VI 75-7					M	K	230	310		SC	PE	462	MW	SIUDA
26 VI 75-8							205	340		SC	ID	462	MW	SIUDA
26 VI 75-9					M	K	290	330		SC	ID	462	MW	SIUDA
26 VI 75-10							155	340		SC	PE	462	MW	SIUDA
26 VI 75-11							200	330		SC	ID	462	MW	SIUDA
26 VI 75-12							150	330		SC	ID	462	MW	SIUDA
26 VI 75-14					M	K	150	330		SC	PE	462	MW	SIUDA

Appendix A (continued)

SIUM#	Site Number SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters Size		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veget.	Records
							From Bank	M ² in 100's							
	26 VI 75-15				LW,M	L,K	120	330		SC	E	462	MW	SIUDA	
	26 VI 75-16						155	330		SC	ID	462	MW	SIUDA	
	26 VI 75-17				M	K	115	330		SC	PE	462	MW	SIUDA	
	26 VI 75-18				LW,M	L,K	200	330		SC	E	462	MW	SIUDA	
	26 VI 75-19						95	330		SC	ID	462	MW	SIUDA	
	26 VI 75-20						205	330		SC	ID	462	MW	SIUDA	
	26 VI 75-21			V	M	K	65	330		SC	E	462	MW	SIUDA	

UTM square group: 6428, 6528, 6427, 6527, 6426, 6526, 6425, 6525, 6424, 6524, 6523, 6623, 6723, 6622, 6722, 6822, 6721, 6821, 6720, 6820.

River Miles 913-917:

SIUM#	Site Number	UC#	IAS#	Type	Periods	Culture	From Bank	M ² in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veget.	Records
25D3-06															
	26 VI 75-2			SBG	M	K	400	340		SC	E	597	CBF	SIUM	IAS, SIUM
	26 VI 75-3			SBG	M	K	200	330		SC	E	597	CBF	IAS	IAS
	25 VI 75-11			SBC	M	K	380	330		SC	E	597	CBF	IAS	IAS
	25 VI 75-12			V	M	K	325	330		SC	PE	597	CBF	SIUDA	SIUDA
	25 VI 75-13			SBG	M	K	245	330		SC	E	597	CBF	SIUDA	SIUDA
	25 VI 75-14						940	340		SC	ID	469	MW	SIUDA	SIUDA
	25 VI 75-15				E/MW	B	890	340		SC	E	469	MW	SIUDA	SIUDA
	23 VI 75-0				M	K	795	330		SC	ID	469	MW	SIUDA	SIUDA
	23 VI 75-1			SBG	M	K	600	330		SC	PE	597	CBF	SIUDA	SIUDA
	23 VI 75-3			V	M	K	750	330		SC	PE	597	CBF	SIUDA	SIUDA
	23 VI 75-4			V	M	K	500	330		SC	PE	597	CBF	SIUDA	SIUDA
	23 VI 75-5			V	M	K	450	330		SC	PE	597	CBF	SIUDA	SIUDA
	23 VI 75-6				M	K	400	330		SC	PE	597	CBF	SIUDA	SIUDA
	23 VI 75-8				M	K	350	330		SC	PE	600	CBF	SIUDA	SIUDA
	23 VI 75-10						585	330		SC	ID	600	CBF	SIUDA	SIUDA
	23 VI 75-11						490	330		SC	ID	600	CBF	SIUDA	SIUDA
	23 VI 75-12				LW,M	L,K	590	330		SC	ID	600	CBF	SIUDA	SIUDA
	23 VI 75-13						505	330		SC	PE	600	CBF	SIUDA	SIUDA
	23 VI 75-14			V	LW,M	L,K	1000	330		SC	ID	600	CBF	SIUDA	SIUDA
	23 VI 75-16						550	330		SC	E	600	CBF	SIUDA	SIUDA
	23 VI 75-17				M	K	670	330		SC	PE	597	CBF	SIUDA	SIUDA
	25 VI 75-1				M	K	655	330		SC	PE	597	CBF	SIUDA	SIUDA
	25 VI 75-2				LW, M	L,K	105	330		SC	PE	597	CBF	SIUDA	SIUDA
	25 VI 75-3						55	330		SC	ID	597	CBF	SIUDA	SIUDA
	25 VI 75-4				LW	L	35	330		SC	PE	597	CBF	SIUDA	SIUDA
	25 VI 75-5						165	330		SC	PE	597	CBF	SIUDA	SIUDA
	25 VI 75-6				M	K	780	330		SC	ID	597	CBF	SIUDA	SIUDA
	25 VI 75-7				M	K	245	330		SC	PE	597	CBF	SIUDA	SIUDA
	25 VI 75-8				M	K	245	330		SC	PE	597	CBF	SIUDA	SIUDA

Appendix A (continued)

SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters Size		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veget.	Records
							From Bank	M ² in 100's							
	25 VI 75-9				M	K	215	330	330	SC	PE	597	CBF	SIUDA	
	25 VI 75-10				M	K	25	330	330	SC	PE	600	CBF	SIUDA	
				SBC	M	K	175	330	330	SC	E	600	CBF	SIUDA	
25D3-04	24 VI 75-1				LW,M	K	150	330	330	SC	PE	597	CBF	SIUDA	
	24 VI 75-2				LW,M	K	150	330	330	SC	PE	597	CBF	SIUDA	
	24 VI 75-3				LW,M	K	215	330	330	SC	PE	597	CBF	SIUDA	
	24-VI 75-4				M	K	140	330	330	SC	E	597	CBF	SIUDA	
	24-VI-75-5				M	K	150	330	330	SC	E	597	CBF	SIUDA	
	24 VI-75-6				LW,M	L,K	150	330	330	SC	PE	597	CBF	SIUDA	
	24 VI 75-7				LW,M	L,K	100	330	330	SC	PE	597	CBF	SIUDA	
	24 VI 75-8				V		165	330	330	SC	ID	597	CBF	SIUDA	
	24 VI 75-9				V	B,K	215	330	330	SC	PE	597	CBF	SIUDA	
	24 VI 75-10				M	K	150	330	330	SC	PE	597	CBF	SIUDA	
	24 VI 75-11				M	K	145	330	330	SC	PE	597	CBF	SIUDA	
	24 VI 75-12				V		150	330	330	SC	PE	597	CBF	SIUDA	
	24 VI 75-13				LW,M	L,K	325	330	330	SC	ID	597	CBF	SIUDA	
	24 VI 75-14						315	330	330	SC	ID	600	CBF	SIUDA	
	24 VI 75-15						110	330	330	SC	ID	600	CBF	SIUDA	
	24 VI 75-16				M	K	285	320	320	SC	PE	597	CBF	SIUDA	
	24 VI 75-17				M	K	315	320	320	SC	PE	597	CBF	SIUDA	
	24 VI 75-19				M	K	315	320	320	SC	PE	597	CBF	SIUDA	
	24 VI 75-20				LW,M	L,K	145	320	320	SC	PE	597	CBF	SIUDA	
	24 VI 75-21			F			190	320	320	SC	PE	597	CBF	SIUDA	
	24 VI 75-22				LW	L	280	320	320	SC	ID	597	CBF	SIUDA	
	24 VI 75-23						155	320	320	SC	PE	597	CBF	SIUDA	
	24 VI 75-24				LW,M	L,K	135	320	320	SC	PE	597	CBF	SIUDA	
	24 VI 75-25			V			160	320	320	SC	ID	597	CBF	SIUDA	
	24 VI 75-26									SC	ID	597	CBF	SIUDA	

UTM square group: 16SCS: 6820, 6920, 6819, 1919, 7019, 6918, 7018, 7118, 7017, 7117, 7016, 7116, 7216, 7115, 7215, 7114, 7214.

River Miles 918-922:

BB Pp-199															
[29 VI 75-1							95	340	340	SC	ID	693	MW	SIUDA	
29 VI 75-2							125	340	340	SC	ID	693	MW	SIUDA	
29 VI 75-3							150	340	340	SC	ID	693	MW	SIUDA	
BB Pp-200															
[29 VI 75-4							155	330	330	SC	ID	693	MW	SIUDA	
29 VI 75-5							170	340	340	SC	ID	693	MW	SIUDA	
BB Pp-201															
[29 VI 75-6							190	340	340	SC	ID	693	MW	SIUDA	
BB Pp-202															
[29 VI 75-8							45	340	340	SC	ID	693	MW	SIUDA	
BB Pp-203															
[29 VI 75-9					M	K	50	340	340	SC	PE	693	MW	SIUDA	

Appendix A (continued)

SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M ² in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	BB Pp-204														
	29 VI 75-10				M	K	75		340		SC	PE	693	MM	SIUDA
	29 VI 75-11						55		330		SC	ID	693	MM	SIUDA
	BB Pp-205														
	29 VI 75-12						55		330		SC	ID	693	MM	SIUDA
	BB Pp-206														
	29 VI 75-13						50		330		SC	ID	693	MM	SIUDA
	29 VI 75-14						450		340		SC	ID	463b	MM	SIUDA
	BB Pp-209														
	29 VI 75-15						320		330		SC	ID	693	MM	SIUDA
	BB Pp-207														
	29 VI 75-A						105		330		SC	ID	693	MM	SIUDA
	BB Pp-208														
	29 VI 75-B														
25D3-02		Pp ^o 23	Pp-21												
				SBC	M	K	105		330		SC	ID	693	MM	SIUDA
				SBC	M	K	480		340		SC	ID	461b	POF	SIUM
							250		340		SC	PE	469a	MM	IAS
JTM square group: 16 SCS: 7114, 7214, 7314, 7113, 7213, 7313, 7212, 7312, 7111, 7211, 7311, 7110, 7210, 7109, 7209, 7108, 7208															
<u>River Miles 923-927:</u>															
	BB Pp-176														
	27 VI 75-12						145		330		SC	ID	597	CBF	SIUDA
	BB Pp-177														
	27 VI 75-13						220		330		SC	ID	597	CBF	SIUDA
	BB Pp-178														
	27 VI 75-14						200		330		SC	ID	597	CBF	SIUDA
	Pp ^v -22		Pp-20		M	K	305		335		SC	PE	469	MM	SIUDA
	BB Pp-116														
	23 VI 75-1		Pp-30		LW	L	480	30	330		SC	PE	597	CBF	SIUDA
	BB Pp-117														
	23 VI 75-2				LW	L	780	1	330		SC	PE	597	CBF	SIUDA
	BB Pp-124														
	26 VI 75-1				E/MM, M	B, K	795	20	330		SC	PE	597	CBF	SIUDA
	26 VI 75-2						750		330		SC	ID	597	CBF	SIUDA
	BB Pp-125														
	26 VI 75-3						790	25	330		SC	PE	597	CBF	SIUDA
	BB Pp-126														
	26 VI 75-4				E/MM, M	B, K	750	20	330		SC	PE	597	CBF	SIUDA
	BB Pp-127														
	26 VI 75-5				LW	L	815		330		SC	PE	597	CBF	SIUDA
	BB Pp-128														
	25 VI 75-6				M	K	760	30	330		SC	PE	597	CBF	SIUDA
	BB Pp-129														
	26 VI 75-7				E/MM, M	B, K	830	25	330		SC	PE	597	CBF	SIUDA

Appendix A (continued)

SIW#	SIW#	VOC	IASH	Type	Periods	Culture	Meters From Bank	Size From 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veget.	Records
186	PP-117														
186	VI 72-9				LK	L	830		330		SC	PE	597	CBF	SIUDA
186	PP-118														
186	VI 72-9				E/M,M	B,K	880	25	330		SC	PE	597	CBF	SIUDA
186	VI 72-3														
186	VI 72-3														
186	PP-118				V	K	350	1	330		SC	PE	597	CBF	SIUDA
186	VI 72-4														
186	PP-119														
186	VI 72-5				LK,M	L,K	700	40	330		SC	PE	597	CBF	SIUDA
186	VI 72-7														
186	VI 72-7														
186	VI 72-8														
186	PP-120														
186	VI 72-9				F	K	430	1	325		SC	PE	597	CBF	SIUDA
186	PP-132														
186	VI 72-10				V	B,K	700	36	330		SC	PE	597	CBF	SIUDA
186	PP-133														
186	VI 72-11				LK,M	L,K	700		330		SC	PE	597	CBF	SIUDA
186	PP-134														
186	VI 72-10				LK,M	L,K	665	60	330		SC	PE	597	CBF	SIUDA
186	PP-135														
186	VI 72-11				M	K	805		330		SC	PE	597	CBF	SIUDA
186	PP-136														
186	VI 72-12														
186	VI 72-3														
186	PP-137														
186	VI 72-4				M	K	1000	50	330		SC	PE	597	CBF	SIUDA
186	PP-138														
186	VI 72-16				V	K	935	25	330		SC	PE	597	CBF	SIUDA
186	PP-137														
186	VI 72-17				V	K	975	1	330		SC	PE	597	CBF	SIUDA
186	VI 72-18														
186	VI 72-19														
186	VI 72-20														
186	VI 72-20														
186	VI 72-21														
186	PP-139														
186	VI 72-22				V	B,K	785	30	330		SC	PE	597	CBF	SIUDA
186	PP-139														
186	VI 72-23				V	B,K	815	30	330		SC	PE	597	CBF	SIUDA
186	VI 72-22														
186	PP-141														
186	VI 72-13				V	B,K	800		330		SC	PE	597	CBF	SIUDA
186	PP-145														
186	VI 72-14				V	K	745		330		SC	PE	597	CBF	SIUDA
186	PP-146														
186	VI 72-15				F	K	700		330		SC	PE	597	CBF	SIUDA

Appendix A (continued)

Site Number	UC#	IAS#	Type	Periods	Culture	Meters		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
						From Bank	Size in 100's							
14 VI 75-10							320	330	SC	ID	597	CBF	SIUDA	
14 VI 75-11							490	330	SC	ID	597	CBF	SIUDA	
14 VI 75-12			V	LW,M	L,K		400	330	SC	PE	597	CBF	SIUDA	
18 VI 75-13							500	330	SC	ID	597	CBF	SIUDA	
14 VI 75-14			V	M	K		525	330	SC	PE	597	CBF	SIUDA	
14 VI 75-15			C	A	F		500	330	SC	PE	597	CBF	SIUDA	
88 PP-179														
27 VI 73-15			V	M	K		450	100	SC	PE	597	CBF	SIUDA	
88 PP-180														
27 VI 73-16				M	K		500	30	SC	PE	469	MW	SIUDA	
88 PP-181														
27 VI 73-17							600	330	SC	ID	469	MW	SIUDA	
88 PP-182														
27 VI 73-18				LW,M	L,K		670	40	SC	PE	469	MW	SIUDA	
88 PP-183														
27 VI 72-19				E/MW,M	B,K		605	20	SC	PE	597	CBF	SIUDA	
27 VI 73-20							525	330	SC	ID	597	CBF	SIUDA	
88 PP-184														
27 VI 72-21							705	330	SC	ID	597	CBF	SIUDA	
88 PP-185														
27 VI 73-22							680	330	SC	ID	600	CBF	SIUDA	
88 PP-186														
27 VI 73-23			V	M	K		245	20	SC	PE	600	CBF	SIUDA	
88 PP-155														
22 VI 73-6			V	M	K		290	60	SC	PE	600	CBF	SIUDA	
88 PP-157														
22 VI 73-9			V	M	K		300	25	SC	PE	597	CBF	SIUDA	
88 PP-159														
22 VI 73-15			V	M	K		550	335	SC	ID	469	MW	SIUDA	
22 VI 73-8							70	330	SC	PE	597	CBF	SUIDA	
88 PP-158														
22 VI 73-11			V	E/MW	B		300	335	SC	PE	693	MW	SIUDA	
88 PP-158														
22 VI 73-12				M	K		400	335	SC	PE	693	MW	SIUDA	
88 PP-158														
22 VI 73-13							400	335	SC	ID	693	MW	SIUDA	
88 PP-158														
22 VI 73-14			V	M	K		350	20	SC	PE	693	MW	SIUDA	
22 VI 73-16							625	335	SC	ID	469	MW	SIUDA	
88 PP-160														
22 VI 73-17							650	335	SC	ID	469	MW	SIUDA	
88 PP-161														
22 VI 73-18			V				700	335	SC	ID	469	MW	SIUDA	
88 PP-162														
25 VI 73-1							745	335	SC	ID	469	MW	SIUDA	

Appendix A (continued)

SIUM#	SIUDA#	Site Number	UC#	IAS#	Type	Periods	Culture	Meters Size From Bank 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
		25 VI 73-2						815	335		SC	ID	469	MW	SIUDA
		[BB Pp-163													
		25 VI 73-3			V			680	335		SC	ID	469	MW	SIUDA
		[BB Pp-210													
		25 VI 73-4			V	E/MW	B	670	335		SC	PE	469	MW	SIUDA
		[BB Pp-164													
		25 VI 73-5			V	E/MW, M	B, K	600	335		SC	PE	469	MW	SIUDA
		23 VI 73-6						925	335		SC	ID	469	MW	SIUDA
		23 VI 73-8						940	335		SC	ID	469	MW	SIUDA
		[BB Pp-165													
		25 VI 73-9						885	335		SC	ID	469	MW	SIUDA
		[BB Pp-166													
		25 VI 73-10						765	335		SC	ID	469	MW	SIUDA
		25 VI 73-11						700	335		SC	ID	469	MW	SIUDA
		[BB Pp-167													
		25 VI 73-12				E/MW	B	700	335		SC	PE	469	MW	SIUDA
		25 VI 73-13						675	335		SC	ID	469	MW	SIUDA
		25 VI 73-14						340	335		SC	ID	469	MW	SIUDA
		[BB Pp-168													
		25 VI 73-15						590	335		SC	ID	469	MW	SIUDA
		[BB Pp-166													
		25 VI 73-16			V	M	K	725	335	12	SC	PE	469	MW	SIUDA
		[BB Pp-169													
		25 VI 73-17			V	M	K	650	335		SC	PE	469	MW	SIUDA
		[BB Pp-169													
		25 VI 73-18			V			715	335		SC	ID	469	MW	SIUDA
		[BB Pp-170													
		25 VI 73-19				E/MW	B	760	335	30	SC	PE	469	MW	SIUDA
		[BB Pp-171													
		25 VI 73-21				LW, M	L, K	965	335	40	SC	PE	469	MW	SIUDA
		25 VI 73-22						1000	335		SC	ID	469	MW	SIUDA
		[BB Pp-101													
		10 VI 69				A	F	760	335		SC	PE	469	MW	SIUDA
		26 VI 73-1						915	335		SC	ID	469	MW	SIUDA
		[BB Pp-173													
		26 VI 73-2													
		[BB Pp-174													
		26 VI 72-3													
		[BB Pp-175													
		27 VI 73-11			V	M	K	975	335		SC	ID	469	MW	SIUDA
								1000	335	1	SC	PE	469	MW	SIUDA
					V	M	K	105	335	40	SC	PE	597	CBF	SIUDA
					V	M	K	310	335		SC	PE	469	MW	SIUDA
					V	M	K	325	335		SC	PE	469	MW	SIUDA
					V	M	K	55	335		SC	ID	597	CBF	SIUDA
					V	M	K	155	310		SC	PE	597	CBF	SIUDA
		27 VI 72-7													
		[BB Pp-156													
		22 VI 73-7													

Appendix A (continued)

SIUM#	Site Number SIUDAY	UC#	IAS#	Type	Periods	Culture	Meters Size		Elev.	Depth	Cond.	Soil	Nat. Reg.	Veget.	Records
							From Bank	In 100's							
25D3-09					A,E/MM	F,B	530		335		SC	ID	597	CBF	SIUDA
25D3-08							550		335		SC	F	597	CBF	SIUDA
UTM square group: 16 SCS: 7009, 7109, 7008, 7108, 7007, 7107, 6906, 7006, 7106, 6805, 6905, 7005, 6704, 6804, 6904, 6703, 6803, 6903.															
<u>River Miles 928-932:</u>															
24C4-02	IV 71-1		Mx-66	V	M	K	600	100	330	1.3m	CSC,E	E	597	CBF	IAS,SIUDA
24C4-06	IV 71-2		Mx-66	V	M	K	640	50	330		SC	E	597	CBF	IAS,SIUDA
	IV 71-3		Mx-57	SBG	M	K	460		325		SC	PF	597	CBF	IAS,SIUDA
	IV 71-4	Mx ⁰ -13	Mx-55	V	M	K	900	30	325		SC	PF	597	CBF	IAS,SIUDA
	IV 71-5	Mx ⁰ -24	Mx-58	V	M	K	570	50	325		SC	PE	600	CBF	IAS,SIUDA
	IV 71-6	Mx ⁰ -14	Mx-58	V	M	K	640	25	325		SC	PE	600	CBF	IAS,SIUDA
	IV 71-7	Mx ⁰ -14	Mx-58	V	M	K	610	30	325		SC	PE	600	CBF	IAS,SIUDA
	BB Mx-111						825	40	325		SC	ID	600	CBF	SIUDA
	124 IV 71-8						640		325		SC	PE	600	CBF	SIUDA
	BB Mx-112				C/MM,M	B,K					SC	PE	600	CBF	SIUDA
	IV 71-9			V							SC	PE	600	CBF	SIUDA
	BB Mx-145										SC	PE	600	CBF	SIUDA
	16 VIII 71-1			F	M	K	810	12	330	.92m	CSC,E	E	597	CBF	SIUDA
	BB Mx-146										SC	PE	600	CBF	SIUDA
	16 VIII 71-2			F	M	K	810	12	330	.92m	CSC,E	E	597	CBF	SIUDA
	BB Mx-147										SC	PE	600	CBF	SIUDA
	16 VIII 71-3			F	M	K	810	12	330	.92m	CSC,E	E	597	CBF	SIUDA
	BB Mx-148										SC	PE	600	CBF	SIUDA
	16 VIII 71-4			F	M	K	810	12	330	.92m	CSC,E	E	597	CBF	SIUDA
	BB Mx-113										SC	PE	600	CBF	SIUDA
	15 V 71-1	Mx ⁰ -23	Mx-59	F	M	K	760	30	325		SC	PE	597	CBF	IAS,SIUDA
	15 V 71-2	Mx ⁰ -12	Mx-56	V	M	K	615		325		SC	ID	597	CBF	IAS,SIUDA
	28 VI 72-28						925		330		SC	ID	597	CBF	SIUDA
	28 VI 72-29			V	M	K	900		300		SC	PE	597	CBF	SIUDA
	BB Mx-184										SC	PE	597	CBF	SIUDA
	22 VI 72-17			V	LW,M	L,K	645		325		SC	ID	597	CBF	SIUDA
	22 VI 72-18			V	LW,M	L,K	465		320		SC	PE	597	CBF	SIUDA
	BB Mx-185										SC	PE	597	CBF	SIUDA
	22 VI 72-19			V	LW,M	L,K	500		330		SC	PE	597	CBF	SIUDA
	BB Mx-186										SC	PE	597	CBF	SIUDA
	22 VI 72-20			V	LW,M	L,K	455		330		SC	PE	597	CBF	SIUDA
	BB Mx-187										SC	PE	597	CBF	SIUDA
	22 VI 72-16			V	LW,M	L,K	475		320		SC	ID	597	CBF	SIUDA
	BB Mx-191										SC	PE	597	CBF	SIUDA
	27 VI 72-1				A,E/MM	F,B	1000		330		SC	E	597	CBF	SIUDA

UTM square group: 16SCS: 6005, 6105, 6004, 6104, 6204, 6304, 6404, 6504, 6604, 6704, 6103, 6203, 6303, 6403, 6503, 6603, 6703.

Appendix A (continued)

SIUM#	SIUDA#	UC#	AS#	Type	Periods	Culture	Meters Size From Bank 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veget.	Records
River Miles 933-937:														
24C4-54														
	BB Mx-114				M	K	390	330		SC	PE	597	CBF	SIUDA
	23 VI 71-1													
	BB Mx-155				A, E/MM, M	F, B, K	450	330		SC	E	597	CBF	SIUDA
	23 VI 71-2													
	BB Mx-115						520	330		SC	ID	597	CBF	SIUDA
	23 VI 71-3													
	BB Mx-116				A	F	330	330		SC	PE	597	CBF	SIUDA
	23 VI 71-4													
	BB Mx-116				A	F	300	330		SC	PE	597	CBF	SIUDA
	23 VI 71-5													
	BB Mx-116				A	F	300	330		SC	PE	597	CBF	SIUDA
	23 VI 71-6													
	BB Mx-117				A, E/MM, M	F, B, K	430	330		SC	E	597	CBF	IAS, SIUDA
	23 VI 71-7													
	BB Mx-118				A	F	320	330		SC	PE	600	CBF	SIUDA
	23 VI 71-8													
	BB Mx-118				A	F	250	330		SC	PE	600	CBF	SIUDA
	23 VI 71-9													
	BB Mx-119				A	F	450	330		SC	PE	597	CBF	SIUDA
	23 VI 71-10													
	BB Mx-118				A	F	330	330		SC	PE	600	CBF	SIUDA
	23 VI 71-11													
	BB Mx-140				LW, M	L, K	750	330		SC	PE	597	CBF	SIUDA
	30 VI 71-1													
	BB Mx-140				M	K	680	330		SC	PE	597	CBF	SIUDA
	30 VI 71-2													
	BB Mx-140				A, M	F, K	630	330		SC	PE	597	CBP	SIUDA
	30 VI 71-3													
	BB Mx-141				M	K	580	330		SC	PE	597	CBF	SIUDA
	30 VI 71-4													
	BB Mx-142				M	K	880	330		SC	PE	597	CBF	SIUDA
	30 VI 71-5													
	BB Mx-143						1000	330		SC	ID	597	CBF	SIUDA
	30 VI 71-6													
	BB Mx-135				V	L, K	1000	325		SC	PE	597	CBF	SIUDA
	29 VI 71-6													
	BB Mx-136				M	K	1000	325		SC	PE	597	CBF	SIUDA
	29 VI 71-7													
	BB Mx-137				V	L, K	970	325		SC	PE	597	CBF	SIUDA
	29 VI 71-8													
	BB Mx-138				V	B, L, K	860	325		SC	E	597	CBF	SIUDA
	29 VI 71-9													

Appendix A (continued)

SIUM#	SIUDA#	Site Number	UC#	IAS#	Type	Periods	Culture	Meters Size		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
								From Bank	M ² in 100's							
		BB Mx-144			V	LW,M	L,K	700	30	325		SC	PE	597	CBF	SIUDA
		30 VI 71-7														
		BB Mx-144			V	LW,M	L,K	780	40	325		SC	PE	597	CBF	SIUDA
		30 VI 71-8														
		BB Mx-149			V	M	K	990	30	330		SC	PE	597	CBF	SIUDA
		8 IV 72-1														
		BB Mx-150			V	M	K	890	25	325		SC	PE	597	CBF	SIUDA
		8 IV 72-3														
		8 IV 72-4														
		BB Mx-151			V	M	K	860	20	325		SC	PE	597	CBF	SIUDA
		8 VI 72-5														
		8 VI 72-6														
		8 VI 72-7														
		BB Mx-152			V	M	K	1000		325		SC	PE	597	CBF	SIUDA
		8 VI 72-8														
					V	M	K	1000	40	330		SC	PE	597	CBF	SIUDA

UTM square group: 16SCS: 5410, 5510, 5610, 5409, 5509, 5609, 5708, 5808, 5908, 5709, 5807, 5907, 5807, 5907, 6007, 5806, 5906, 6006, 5906, 6005, 6105, 6004.

River Miles 938-942:

25C4-11					V	HI	HI	50		330		SC	NR	597	CBF	SIUM
25C4-12					V	HI	HI	10		330		E	NR	597	CBF	IAS,SIUM
25C4-13		Mx-83			V	HI	HI	10	225	330		SC	NR	597	CBF	SIUM
25C4-14					V	M	K	300	41	330		SC	PE	463	MW	SIUM
25C4-15					V	A	F	320	10	330			PE	460	POF	IAS,SIUM
25C4-16					V	A	F	80		330			PE	461	POF	IAS,SIUM
25C4-17					V	M	K	590	750	340		SC	ID	460	POF	IAS,SIUM
25C4-18					C	A	F	100	1875	330		E	PE	597	CBF	IAS,SIUM
25C4-19					C	A	F	210	41	330		SC	PE	693	MW	IAS,SIUM
25C4-20					C	A	F	1000		340			PE	460	POF	IAS,SIUM
25C4-21					C	A	F	300		330		E,D	ID	463c	MW	IAS,SIUM
25C4-22					C	A	F	400		330			PE	462	MW	IAS,SIUM
25C4-23					C	A	F	100		330		SC	PE	597	CBF	IAS,SIUM
25C4-24					C	A,E/MM	F,B	200	7500	320		SC	E	597	CBF	IAS,SIUM
25C4-25					C	A,M	F,K	100		330		SC	PE	597	CBF	IAS,SIUM
25C4-26					C	A	F	100	41	330		SC	PE	693	MW	IAS,SIUM
25C4-27					C	A	F	480	41	330		SC	ID	461	POF	IAS,SIUM
25C4-28					C	A	F	520	3025	320		SC	PE	462	POF	IAS,SIUM
25C4-29					C	A,M	F,K	420		330		SC	PE	462	POF	IAS,SIUM
25C4-30					C	A	F	510	10	330		SC	PE	462	MW	IAS,SIUM
25C4-31					C	A	F	1000	30	330		SC	PE	462	MW	IAS,SIUM
25C4-32					C	A	F	900		330		SC	PE	462	MW	IAS,SIUM
25C4-33					C	A	F	480		330		SC	PE	463	MW	IAS,SIUM
25C4-34					C	A	F	900		310		SC	PE	460	MW	IAS,SIUM
25C4-35					SBG	M	K	230	41	320		E	PE	597	CBF	IAS,SIUM

Appendix A (continued)

STUD#	Site Number SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters Size		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veget.	Records
							From Bank	M ² in 100's							
UTM square group: 16SCS: 4712, 4812, 4912, 5012, 5112, 4611, 4711, 4811, 4911, 5011, 5111, 5211, 5311, 5110, 5210, 5310, 5410.															
<u>River Miles 943-947:</u>															
25C4-56			Mx-136				180	330			ID	600	CBF	IAS, SIUM	
25C4-57			Mx-137				120	330			ID	693	CBF	IAS, SIUM	
UTM square group: 16SCS: 4016, 4116, 4216, 4316, 4115, 4215, 4315, 4415, 4214, 4314, 4414, 4313, 4413, 4513, 4412, 4512, 4612, 4712, 4611.															
<u>River Miles 948-952:</u> no sites recorded for this section.															
UTM square group: 16SCS: 3320, 3420, 3520, 3319, 3419, 3519, 3619, 3719, 3518, 3618, 3718, 3818, 4018, 3717, 3817, 3917, 4017, 4117, 4016, 4116.															
<u>River Miles 953-957:</u> no sites recorded for this section.															
UTM square group: 16SCS: 2523, 2623, 2522, 2622, 2722, 2822, 2922, 3022, 3122, 2721, 2821, 2921, 3021, 3121, 3221, 3321, 3020, 3120, 3220, 3320, 3420, 3319.															
<u>River Miles 958-962:</u> no sites recorded for this section.															
UTM square group: 16SCS: 2423, 2523, 2122, 2222, 2322, 2422, 2522, 1921, 2021, 2221, 2321, 2421, 1820, 1920, 2020, 2120, 2200, 1719, 1819, 1919, 1818.															
<u>River Miles 963-967:</u> no sites recorded for this section.															
UTM square group: 16SCS: 1719, 1819, 1618, 1718, 1818, 1517, 1617, 1717, 1416, 1516, 1315, 1415, 1515, 1214, 1314, 1414, 1213, 1313, 1413, 1212, 1312.															
<u>River Miles 968-972:</u> no sites recorded for this section.															
UTM square group: 16SCS: 1212, 1312, 1111, 1211, 1311, 1010, 1110, 1210, 0909, 1009, 1109, 1209, 0808, 0908, 1008, 0707, 0807, 0907, 0806.															
<u>River Miles 973-977:</u>															
24D4-02			Pu-23	M, V	M		300	1500	310		D			IAS, SIUM	
24D4-66				M	LW		200	5000	320		PE	306	CBF	SIUM	
24D4-67				V			130	900	319		ID	306	CBF	SIUM	
24D4-68				V	LW		130	625	319		PE	306	CBF	SIUM	
24D4-69				V	LW		640	300	319		PE	452	MW	SIUM	
24D4-29				M	M		600	14	320		E	462	MW	SIUM	
UTM square group: 16SCS: 0707, 0807, 0606, 0706, 0806, 0605, 0705, 0504, 0604, 0704, 0503, 0603, 0402, 0502, 0602, 0401, 0501, 0400, 0500. 16SCR: 0599, 0699, 0598, 0698.															

Appendix A (continued)

Site Number	UC#	IAS#	Type	Periods	Culture	Meters Size From Bank	100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veget.	Records
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River Miles 978-982: no sites recorded for this section.

UTM square group: 16SCR: 0598, 0698, 0597, 0697, 0797, 0696, 0796, 0896, 0695, 0795, 0895, 0794, 0894, 0994.

APPENDIX B

HISTORIC SITES NEAR THE OHIO RIVER IN ILLINOIS

Gallatin CountyRiver Mile 848 (On the Little Wabash River near New Haven):

- | | | |
|------|-----------------------|--|
| Ga-1 | Jonathan Boone's Mill | Site of mill built in 1800 by Daniel Boone's brother |
| Ga-2 | Graddy Hotel | Built in 1859, stop on Shawneetown-Vincennes stage route |

River Mile 857 (Old Shawneetown):

- | | | |
|-------|------------------------|---|
| Ga-3 | Stephen Rowan House | Built in 1832 by local businessman |
| Ga-4 | Methodist Church | Built in 1842; restored, occupied |
| Ga-5 | William Docker House | Built in 1838; first mayor, restored, occupied |
| Ga-6 | George Pillow House | Built in 1860, lawyer |
| Ga-7 | William Jachmier House | Built ca. 1811; oldest home in Shawneetown |
| Ga-8 | Henry Peeples Home | Built in 1870's, postmaster |
| Ga-9 | Robert Peeples Home | Built ca. 1817-20, third brick house in town |
| Ga-10 | Old State Bank | Built in 1838, Greek Revival style; in process of restoration |
| Ga-11 | Rawlings Hotel | Built in 1821; Lafayette stayed here |
| Ga-12 | Michael Jones Building | Built in 1835 |

River Mile 858 (Old Shawneetown):

- | | | |
|-------|---------------------|---|
| Ga-13 | John Marshall House | Built ca. 1815-25; reconstructed, used as a museum, first bank in Shawneetown |
|-------|---------------------|---|

River Mile 859 (Old Shawneetown vicinity):

- | | | |
|-------|-------------|--------------------|
| Ga-14 | Bowlesville | Site of early town |
|-------|-------------|--------------------|

River Mile 863 (Equality Vicinity on Saline River):

- | | | |
|-------|-------------------------|---|
| Ga-15 | U. S. Salines | Used by Indians and French, U. S. owned until 1818, major source of salt west of Alleghenies |
| Ga-16 | John Crenshaw Mansion | Built in 1842, Greek Revival style; Crenshaw owned salt springs, became wealthy salt king |
| Ga-17 | Half Moon Lick | Salt spring, produced salt until 1873; used by prehistoric animals, Indians; U. S. owned until 1818 |
| Ga-18 | Equality Opera House | 19th Century opera house |
| Ga-19 | General Lawler Monument | Monument to Civil War general |

River Mile 867 (Equality vicinity):

- | | | |
|-------|----------------|--------------------------|
| Ga-20 | Saline Landing | Early commercial landing |
|-------|----------------|--------------------------|

Hardin CountyRiver Mile 871:

- | | | |
|------|------------------|--|
| Hr-1 | Sellar's Landing | Old commercial landing, Illinois frontier period (1780-1818) |
|------|------------------|--|

River Mile 877:

- | | | |
|------|-------------------------------|-------------------------|
| Hr-2 | Old Ford's Ferry | Site of old river ferry |
| Hr-3 | Frailly House and outbuilding | Old residence |

River Mile 880 (Cave-in-Rock):

- | | | |
|------|-------------------|---|
| Hr-4 | Cave-in-Rock Cave | Natural wonder and outlaw hideout, commercial landing; Illinois frontier period (1780-1818) |
|------|-------------------|---|

River Mile 881 (Cave-in-Rock):

- | | | |
|------|-------|-------------------------|
| Hr-5 | House | Old residence, occupied |
| Hr-6 | House | Old residence, occupied |
| Hr-7 | House | Old residence, occupied |

Hr-8	House	Old residence, occupied
Hr-9	House	Old residence, occupied
Hr-10	House	Old residence, occupied
Hr-11	House	Old Masonic lodge, present use commercial
Hr-12	Jail	Early jail

River Mile 887 (Elizabethtown vicinity):

Hr-13	House	Old residence, occupied
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River Mile 888 (Elizabethtown):

Hr-14	Two-story brick building	Old residence, unoccupied
Hr-15	Miller's Block	Old commercial establishment, occupied, built in 1876
Hr-16	Two-story wooden residence	Old residence, occupied
Hr-17	First Baptist Church	Old Church, built in 1877
Hr-18	First Baptist Parsonage	Old residence, occupied
Hr-19	Building	Occupied
Hr-20	House	Old residence, occupied
Hr-21	House	Old residence, occupied
Hr-22	Building	Occupied
Hr-23	I.O.O.F. Hall	Present use commercial
Hr-24	House	Old residence, occupied
Hr-25	Hardin County courthouse and war memorial	Built in 1923, present use govern- mental
Hr-26	Methodist Church	Early church, Illinois frontier period (1780-1818)
Hr-27	Rose Hotel	Built in 1812, oldest Illinois hotel in continuous operation; important stopping point for riverboats and land travellers

River Mile 891 (Rosiclare):

- Hr-28 General Baptist Church Old church, occupied
 Hr-29 Fire Department Building Present use governmental

River Mile 893 (Rosiclare):

- Hr-30 Steel Cemetary Old cemetary, Illinois early period
 (1818-1850)

Pope CountyRiver Mile 902 (Golconda):

- Po-1 Brick house Old residence, occupied
 Po-2 Sara Lusk Monument Erected 1928 to pioneer founder of
 Golconda, operator of early ferry
 Po-3 Greek Revival house Old residence, occupied
 Po-4 Store building Old commercial building
 Po-5 Mill Early commerical mill, now abandoned
 Po-6 House Old residence, vernacular architecture
 Po-7 House Old residence, Italianate architecture
 Po-8 Opera House Typical small town opera house;
 present use commercial
 Po-9 House Old residence, 19th Century, unoccupied
 Po-10 First Presbyterian Church Brick church, built in 1920's
 Po-11 House Old residence, 19th Century
 Po-12 Our Redeemer Lutheran Church Old church, good condition
 Po-13 Italianate mansion Old residence, architectural signifi-
 cance
 Po-14 Riverview Mansion Hotel Old river hotel, occupied
 Po-15 House Old residence, colonial style

Po-16	House	Old residence, architectural significance, occupied
Po-17	T. Abbot Building	Old commercial building
Po-18	Commercial buildings	Old commercial district, occupied
Po-19	Pope County Jail	Good example of rural jail architecture
Po-20	Pope County courthouse	Built in 1872, architectural and historical significance
Po-21	Commercial buildings	Several early commercial buildings together in a district, all in good condition, occupied
Po-22	Pope County Historical Society Museum	Former residence, converted to museum, restored
Po-23	Cook Building	Brick commercial building, occupied
<u>River Mile 907</u> (Golconda vicinity):		
Po-24	Roper's Landing	Early commercial landing
Po-25	House	Old residence, occupied
<u>River Mile 908</u> (Tansill vicinity):		
Po-26	House	Old residence, unoccupied
Po-27	Bridge	Original bridge over Bay Creek, built in 1897; important for local traffic and interesting for its engineering features
<u>River Mile 910</u> (Bay City):		
Po-28	Old School	Early school
<u>River Mile 911</u> (Bay City):		
Po-29	Two-story store building	Early commercial building
Po-30	Bay City Store	Old commercial building, unoccupied
Po-31	Log cabin	Early example of a log cabin, unoccupied
Po-32	Friendship Lodge	Fraternal lodge

River Mile 920 (Hamletsburg vicinity):

Po-33	Log barn	Early log barn, poor condition
Po-34	House on hill	Old residence, occupied

River Mile 921 (Hamletsburg):

Po-35	Log barn	Early log barn, poor condition
Po-36	Building with spire	Old (school?) building, unoccupied
Po-37	Baptist Church	Old church, 19th Century, occupied
Po-38	Post Office	Early 19th Century post office, still in use

Massac CountyRiver Mile 928:

Mc-1	Kincaid Mounds	Prehistoric archaeological site
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River Mile 937 (Brookport):

Mc-2	Public Park	Old steamboat bell, World War II memorial
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River Mile 942 (Metropolis):

Mc-3	Fort Massac	French and American fort, 1765-1815
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River Mile 943 (Metropolis):

Mc-4	Front Street Park	Wilcox home site, old ferry site; Illinois early period (1818-1850)
Mc-5	Massac County Court- house	Architectural significance, political; Illinois middle period (1850-1900) and late period (1900-present); first built in 1862
Mc-6	Virginia Trousdale Home	Built by shipbuilder prior to Civil War; largest magnolia tree in state, occupied
Mc-7	Elijah P. Curtis Home	Built after Civil War, ca. 1866-67, occupied by Civil War Lt. Colonel

- | | | |
|-------|---------------------------------|--|
| Mc-8 | Ingersoll School Site | Site of a log cabin where Robert Ingersoll taught school, Illinois middle period (1850-1900) |
| Mc-9 | Elliot Brothers Furniture Store | Founded and built in 1872, oldest existing business in Massac County |
| Mc-10 | Masonic Lodge Hall | Built in 1894 as an opera house, became Masonic Lodge Hall; architectural significance. present use commercial |
| Mc-11 | Metropolis Library | Carnegie Library, built in 1914 |
| Mc-12 | Memorial Park | War memorials |
| Mc-13 | Band shell, public park | Architectural significance, ca. 1900 |
| Mc-14 | C. C. Roberts home | Old residence, occupied, mid-Victorian architecture, ca. 1900 |
| Mc-15 | Cedar home | Built in 1848, served as schoolhouse, Robert Ingersoll taught here in 1852 |

River Mile 951 (Joppa):

- | | | |
|-------|------------------------|--|
| Mc-16 | Joppa Christian Church | Built in 1894; church bell formerly a steamboat bell |
|-------|------------------------|--|

Pulaski CountyRiver Mile 957:

- | | | |
|------|---------|---|
| Pu-1 | VaBache | Site of Sir Charles Juchereau de St. Denys' tannery, 1702; early French settlement, site of Indian massacre |
|------|---------|---|

River Mile 958:

- | | | |
|------|----------------------|--|
| Pu-2 | Cantonment Wilkinson | Established 1797 by Lt. Colonel David Strong under General James Wilkinson; built to disrupt Spanish plots in area, abandoned in 1807 after Louisiana Purchase decreased its strategic value |
|------|----------------------|--|

River Mile 959:

- | | | |
|------|---------------------|--------------------------------|
| Pu-3 | Grand Chain Landing | Site of old commercial landing |
|------|---------------------|--------------------------------|

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CORPS OF ENGINEERS HUNTINGTON WV HUNTINGTON DISTRICT
CULTURAL RESOURCES OF THE OHIO RIVER FLOODPLAIN IN ILLINOIS, (U)
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River Mile 965 (Olmstead vicinity):

- | | | |
|------|----------------------|---|
| Pu-4 | Caledonia Courthouse | Site of courthouse built in 1843, collapsed in early 1900's |
| Pu-5 | Caledonia Landing | Site of early river port |
| Pu-6 | Justus Post House | Built in 1828 by Justus Post, proprietor of the Caledonia trust, occupied |

River Mile 968:

- | | | |
|------|--------------|-----------------|
| Pu-7 | America site | Early town site |
|------|--------------|-----------------|

River Mile 973 (Mound City):

- | | | |
|-------|------------------------------|--|
| Pu-8 | Lowell School | Built in 1885, addition in 1920 |
| Pu-9 | Mound City Railroad Depot | Built in the late 1850's, used to ship men and materials to Marine Ways |
| Pu-10 | Marine Ways | Built in 1855 by Emporium Real Estate Manufacturing Co.; leased 1861-63 by Capt. W. C. Hambleton to U. S. Government for ship construction for Mississippi squadron during Civil War; 1963-74 Government possession, then returned to city |
| Pu-11 | House | Old residence, Italianate style |
| Pu-12 | House | Old residence, Italianate style |
| Pu-13 | Civil War Hospital | Large warehouse converted into a military hospital in 1861, staffed during Civil War by Sisters of the Holy Cross; partially destroyed by fire in 1976 |
| Pu-14 | St. Peter's Episcopal Church | Built in 1866, occupied |
| Pu-15 | St. Charles Hotel | Built in 1850's; reputed to be headquarters for U. S. Grant before move to Cairo; James B. Eads (gunboat designer) also lived here |
| Pu-16 | St. Mary's Catholic Church | Built in 1892, restored after 1937 |

- | | | |
|-------|---------------------------------|--|
| Pu-17 | Pulaski County
Courthouse | Built in 1912, damaged in flood of
1937, remodeled again in 1964 |
| Pu-18 | Mound City Public Park | World War II memorial; old fire bell
used at Marine Ways during Civil
War |
| Pu-19 | Mound City National
Cemetery | Established 1864 as a National
Shrine, burial place for 5,000
Union soldiers |

River Mile 974:

- | | | |
|-------|--------------|------------------------|
| Pu-20 | Trinity Site | Site of old river port |
|-------|--------------|------------------------|

Alexander CountyRiver Mile 977:

- | | | |
|------|-------------------------------------|--|
| Al-1 | Future City | Post Civil War black community |
| Al-2 | Illinois Central
Railroad bridge | Begun in 1886, engineering feat;
closed last transportation gap
between Chicago and New Orleans;
was longest bridge in U. S. and,
for a while, the world |

River Mile 978 (Cairo):

- | | | |
|------|--|--|
| Al-3 | St. Mary's Park and
Theodore Roosevelt
Bandstand | Early public park, 1965; President
Roosevelt spoke in bandstand in
October, 1907 |
| Al-4 | Magnolia Manor | Charles A. Galigher home, 1968-72;
U. S. Grant visited there in 1880;
architectural significance; museum |
| Al-5 | Riverlore or Rendleman
Home | W. P. Halliday home, built in 1865,
occupied, architectural signifi-
cance |
| Al-6 | Herbert Home | Built in 1876 by Tom Halliday,
occupied; architectural signifi-
cance |
| Al-7 | Lansden Park (Candee
Park) | Civil War gun, flagpole from Civil
War steamer <u>Tigris</u> |

J. C. Cochrane, architect for first capital of Illinois; home of Judge William Green, state representative and senator

Al-18 Church of the Redeemer Built in 1858-62, served as Civil War Hospital, bell made of 500 silver dollars donated by crew of James Montgomery, sunk above Cairo. Bell salvaged and given to church

Al-19 St. Charles Hotel Built in 1855, used as living quarters for General Grant and Admiral Foote when Union troops stationed at Cairo. Original structure razed but annex built in 1890's remains

River Mile 980 (Cairo):

Al-20 Fort Defiance At confluence of Mississippi and Ohio rivers; observation point for George Rogers Clark; Civil War fort

Summary: Ohio River Historic Sites in Illinois

Type:	Number:
Home	52
Commercial Building	28
Historic Site	21
Government Building	19
Church	13
Monument or Park	<u>9</u>
Total Historic Sites	142

Sites on the National Register of Historic Places:

Ga-10	Old State Bank	Shawneetown
Ga-15	U. S. Salines	Equality
Ga-13	John Marshall House Site	Shawneetown
Hr-27	Rose Hotel	Elizabethtown
Mc-1	Kincaid Mounds	Black Bottom
Mc-3	Fort Massac	Metropolis
Pu-13	Civil War Hospital	Mound City
Al-4	Magnolia Manor	Cairo
Al-12	Customs House	Cairo

Registered National Historic Districts:

Mound City, Illinois
Golconda, Illinois

Districts Nominated:

Shawneetown, Illinois
Cairo, Illinois (will include over 1,000 structures)

Districts in Consideration:

Metropolis, Illinois

APPENDIX C

Additional Archaeological Sites Near the Ohio River in Illinois and Further than One Kilometer from the River Bank

SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters Size From M ² in Bank	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
River Miles 848-852:														
25B2-07			G-18	C	A		2700	350		SC	PE	426	DS	IAS,SIUM
25B2-08			G-16	C	E/MM		2750	350		E	E	469	MM	IAS,SIUM
25B2-09			G-19	EM,V	LM,M	WVH	2950	350		SC	E	469	MM	IAS,SIUM
25B2-12			G-46	V	M		2200	350		SC	E	469	MM	IAS,SIUM
25B2-13			G-45	C			2600	350		SC	ID	461	MM	IAS,SIUM
25B2-14			G-44	V	E/MM,LM,M		2300	350		SC	E	469	MM	IAS,SIUM
25B2-15			G-43	V,B	E/MM,LM,M		2050	350		SC	E	469	MM	IAS,SIUM
25B2-17			G-68	C	A		3150	350		SC	PE	461	MM	IAS,SIUM
25B2-18			G-69	C	W		2950	350		SC	PE	469	MM	IAS,SIUM
25B2-19			G-70	C			2300	350		SC	ID	469	MM	IAS,SIUM
25B2-05			G-17	EM	E/MM	WVH	5500	400		SC	E	308	MM	IAS,SIUM
25B2-41			G-109	C	A		5000	350		SC	PE	469	MM	IAS,SIUM
25B2-42			G-110	C	A		5100	350		SC	PE	469	MM	IAS,SIUM
River Miles 853-857:														
25B4-21			G-38	V	M		3150	360		SC	PE	75	MM	IAS,SIUM
25B4-23			G-53	C	M		2900	350		SC	PE	131	MM	IAS,SIUM
25B4-24			G-52	V	W		2850	350		SC	PE	462	MM	IAS,SIUM
River Miles 858-862:														
25B4-07			G-11				1700	380			ID	75	MM	IAS,SIUM
25B4-25			G-47	V	A		2700	520		SC	PE	308	MUF	IAS,SIUM
25B4-26			G-48	C			3500	400		SC	ID	37	MM	IAS,SIUM
25B4-27				B			2150	500			ID	308	MUF	IAS,SIUM
River Miles 863-867:														
25B4-02			Hn-3	EM	MM		3450	520		E	E	308	UF	IAS,SIUM
25B4-03			Hn-4	C	A		3150	400		SC	PE	308	MUF	IAS,SIUM
25B4-04			Hn-5	C,V	MM		2750	400		E	E	723	CBF	IAS,SIUM
25B4-06			Hn-26				2450	380			ID	723	CBF	IAS,SIUM
25B4-63			Hn-6	EM	MM		3300	520		E	E	308	UF	IAS,SIUM
25B4-42			G-83	C	A		2100	340			PE	461	MM	IAS,SIUM
25B4-43			G-84	C	A		2175	340	40	SC	PE	462	MM	IAS,SIUM
25B4-45			G-86	C	A		1150	340		SC	PE	190	MM	IAS,SIUM
25B4-46			G-97	C	A		1500	340		SC	PE	461	MM	IAS,SIUM
25B4-47			G-88	V	A		1975	350	160	SC	PE	469	MM	IAS,SIUM
25B4-19			G-29	C	A		2600	350	20	SC	PE	461	MM	IAS,SIUM

Appendix C (continued)

Site Number	UC#	IAS#	Type	Periods	Culture	Meters Size From Bank 100's	Elev.	Depth	Cond.	Mat. Reg.	Soil	Veg.	Records
<u>River Miles 868-872:</u>													
<u>River Miles 873-877:</u>													
<u>River Miles 878-882:</u>													
<u>River Miles 883-887:</u>													
25D1-367						265	370			ID	382	USB	SIUM
25D1-259						1230	350			ID	308	MUF	IAS,SIUM
25D1-39			Hn-25	C	A	1950	370		SC	PE	214	MUF	IAS,SIUM
<u>River Miles 888-892:</u>													
25D1-36						1600	350			ID	461	MUF	IAS,SIUM
25D1-37			Hn-28			1970	350			ID	461	MUF	IAS,SIUM
25D1-38			Hn-27			1580	350			ID	462	MUF	IAS,SIUM
25D1-45			Hn-37			1960	350			ID	461	MUF	IAS,SIUM
<u>River Miles 893-897:</u>													
25D1-22						1200	420				955f	UF	IAS,SIUM
<u>River Miles 898-902:</u>													
<u>River Miles 903-907:</u>													
<u>River Miles 908-912:</u>													
25C2-62			Pp-99	SBG	M	1200	410		D	PE	460	POF	
25C2-49			Pp-70			2340	570			ID	986f	UF	
25C2-116			Pp-107			2520	550			ID	214	POB	
25C2-48			Pp-71			3000	580		SC	ID	214	POB	
25C2-67			Pp-127	C	A	1350	340		SC	PE	460	MUF	
25C2-136			Pp-158			3100	345			ID	461	MUF	
25C2-50			Pp-69	C	A	2180	350		SC	PE	131	POF	
25C2-51			Pp-68	C	A	1800	350			PE	175	POF	
25C2-52			Pp-67	C	A	1620	350		SC	PE	175	POF	
25C2-111			Pp-91			1130	350		SC	ID	463	MUF	

River Miles 913-917: no other sites recorded in this section.

River Miles 918-922: no other sites recorded in this section.

Appendix C (continued)

SIOW#	Site Number SIOW#	IUC#	IAS#	Type	Periods	Culture	Meters Size		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
							From Bank	100's in H ²							
	BB Pp-110				A	F	2210		340		SC	PE	462	MJ	SIUDA
	21 VI 73-T1														
	BB Pp-111				A	F	2780		340		SC	PE	462	MJ	SIUDA
	23 VI 71-T2														
	BB Pp-112				A, E/MJ	F, B	3010		340		SC	E	175	CB	SIUDA
	23 VI 71-T3														
	BB Pp-113				E/MJ, M	B, K	2360	25	325		SC	PE	693	MJ	SIUDA
	24 VI 71-2				M	K	1880		330		SC	PE	469	MJ	IAS
	BB Pp-105				A	F	1490		325		SC	PE	469	MJ	IAS
	V 71-9				M	K	1010		325		SC	PE	469	MJ	IAS
	BB Pp-106				M	K	1590	30	325		CSC, E	PE	597	CBF	SIUDA
	V 71-10														
	BB Pp-107				M	K	1280		325		SC	ID	597	CBF	SIUDA
	V 71-11														
	BB Pp-108				M	K	1160	25	330		SC	PE	598	CBF	SIUDA
	V 71-12														
	BB Pp-109				M	K	1140	25	330		SC	PE	597	CBF	SIUDA
	V 71-13														
	BB Pp-110				M	K	1110	25	330		SC	PE	597	CBF	SIUDA
	V 71-14														
	BB Pp-111				E/MJ	F, B	2400		335		SC	E	469	MJ	SIUDA
	24 VI 71-4														
	BB Pp-112														
	30 VI 72-21														
	BB Pp-113														
	30 VI 72-22														
	BB Pp-114														
	28 VI 73-15														
	BB Pp-115				M	K	2400		340		SC	PE	463	MJ	SIUDA
	28 VI 73-16														
	BB Pp-116				M	K	1700	5	345		SC	PE	463	MJ	SIUDA
	28 VI 73-22														
	BB Pp-117														
	28 VI 73-23														
	BB Pp-118														
	28 VI 73-24														
	BB Pp-119														
	28 VI 73-25														
	BB Pp-120														
	28 VI 73-26														
	BB Pp-121														
	23 VI 72-10				A	F	1520		345		SC	PE	463	MJ	SIUDA
	23 VI 72-11														
	BB Pp-122														
	23 VI 72-12				A	F	1430		345		SC	PE	462	MJ	SIUDA

Appendix C (continued)

SIUM#	Site Number SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M ² in 100's	Elev.	Depth	Cond.	Nat. Ref.	Soil	Veget.	Records
	23 VI 72-13				A	F	1420		345		SC	PE	463	MJ	SIUDA
	23 VI 72-14				A	F	1400		345		SC	PE	462	MJ	SIUDA
	28 VI 73-10						2250		340		SC	ID	462	MJ	SIUDA
		Pp-12		EM	M	K					SC	E	469	MJ	IAS
		Pp-13		V	E/MM, LW, M	B, L, K					SC	E	469	MJ	IAS
		Pp-14		SBG	M	K					E	PE	693	MJ	IAS
		Pp-15		EM	M	K	1900				SC	PE	693	MJ	IAS
		Pp-16		EM, V	M	K					SC	E	597	CBF	IAS
25D3-03	Mx 1-A		Mx-1	T	E/MM, M	B, K	1300		330	2.1	E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 1-A, 1941		Mx-1	T	E/MM, M	B, K	1300		330	0.6	E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 1-B		Mx-1	T	E/MM, M	B, K	1200		325	1.0	E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 1-C		Mx-1	T	E/MM, M	B, K	1550		330		E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 1-D		Mx-1	T	E/MM, M	B, K	1150		330		E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 04		Mx-1	PM	M	K	1330		335		E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 07		Mx-1	PM	M	K	1170		335	8.0	E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 08		Mx-1	PM	M	K	1230		335	10.0	E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 09		Mx-1	PM	M	K	1320		335	4.0	E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 10		Mx-1	PM	M	K	1450		335	6.2	E	NR	597	CBF	IAS, SIUM
25D3-03	Mx 36-A		Mx-1	T	E/MM, M	B, K	1590		335		T	NR	597	CBF	IAS, SIUM
25D3-03	Mx 36-B		Mx-1	T	M	K	1590		335		T	NR	597	CBF	IAS, SIUM
25D3-03	Mx 36-C		Mx-1	T	M	K	1590		335		T	NR	597	CBF	IAS, SIUM
25D3-03	Mx 36-D		Mx-1	T	M	K	1590		335		T	NR	597	CBF	IAS, SIUM
25D3-03	Mx 31		Mx-1	T	M	K	1590		340	1.0	E, T	NR	597	CBF	IAS, SIUM
25D3-03	Pp 1-A		Pp-9	EM	LW, M	L, K	1140		335		E	NR	597	CBF	IAS, SIUM
25D3-03	Pp 02		Pp-9	PM	LW, M	L, K	1200		335	1.6	E	NR	597	CBF	IAS, SIUM
25D3-03	Pp 03		Pp-9	PM	M	K	1200		335		E	NR	597	CBF	IAS, SIUM
25D3-03	Pp 04		Pp-9	M	M	K	1200		335		NR	NR	597	CBF	IAS, SIUM
25D3-03	Pp 05		Pp-9	PM	M	K	1200		335		NR	NR	597	CBF	IAS, SIUM
25D3-03	Pp 06		Pp-9	PM	M	K	1200		335		NR	NR	597	CBF	IAS, SIUM
25D3-03	Pp 07		Pp-9	PM	M	K	1200		335		NR	NR	597	CBF	IAS, SIUM
					A	F	4400		325		SC	PE	469	MJ	SIUDA
					A, E/MM, M	F, B, K	5950		325		SC	PE	469	MJ	SIUDA
					A, E/MM	F, B	4100		325		SC	PE	469	MJ	SIUDA
							3450		325		SC	PE	693	MJ	SIUDA

NOTE: The remaining site designations of this river mile section all refer to the Kincaid Site. Site area estimates are from 330-940 meters² x 100 occupied area.

River Miles 928-933:

- [BB Mx-103
- [1 VI 72
- [BB Mx-106
- [25 IV 70
- [BB Mx-107
- [10 IV 71
- [BB Mx-108
- [10 IV 71

Appendix C (continued)

SITE#	Site Number		Type	IAS#	UC#	Periods	Culture	Meters Size		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veget.	Records
	STUDAF	UC#						From Bank	M ² in 100's							
	BB Mx-109					A	F	3450	320	320	SC		693	MW	SIUDA	
	10 VI 71															
	BB Mx-109					E/MW, LW	B, L	3450	320	320	SC		597	CBF	SIUDA	
	10 IV 71															
	BB Mx-130					A	F	2340	320	320	SC		597	CBF	SIUDA	
	28 VI 71-11															
	BB Mx-110					A	F	3850	325	325	SC		693	MW	SIUDA	
	10 IV 71															
	BB Mx-121					E/MW, M	B, K	1200	320	320	SC		597	CBF	SIUDA	
	25 VI 71-1															
	BB Mx-122					M	K	1720	330	330	SC		597	CBF	SIUDA	
	28 VI 71-1															
	BB Mx-123					LW	L	1900	325	325	SC		469	MW	SIUDA	
	28 VI 71-4															
	BB Mx-124					A	F	1380	325	325	SC		469	MW	SIUDA	
	28 VI 71-5															
	BB Mx-125					E/MW	B	1780	330	330	SC		469	MW	SIUDA	
	28 VI 71-6															
	BB Mx-126					A, LW	F, L	1960	325	325	SC		422	MW	SIUDA	
	28 VI 71-7															
	BB Mx-127					A, E/MW	F, B	2000	325	325	SC	PE	597	CBF	SIUDA	
	28 VI 71-8															
	BB Mx-128					LW	L	1930	330	330	SC			MW	SIUDA	
	28 VI 71-9															
	BB Mx-113					LW	L	1600	330	330	SC		597	CBF	IAS, SIUDA	
24CA-48	15 VI 75-3	Mx V23	Mx-59													
	BB Mx-113															
24CA-48	15 VI 73-4	Mx V23	Mx-59	V		M	K	1610	330	330	SC		597	CBF	IAS, SIUDA	
	BB Mx-113															
24CA-48	15 VI 73-5	Mx V23	Mx-59	V		M	K	1520	330	330	SC	PE	597	CBF	IAS, SIUDA	
	BB Mx-113															
24CA-48	15 VI 73-6	Mx V23	Mx-59	V		M	K	1520	330	330	SC	PE	597	CBF	IAS, SIUDA	
	BB Mx-113															
24CA-48	15 VI 73-7	Mx V23	Mx-59	V		M	K	1500	330	330	SC	PE	597	CBF	IAS, SIUDA	
	BB Mx-170															
	20 VI 72-1					M	K	2800	320	320	SC	PE	469	MW	SIUDA	
	BB Mx-171															
	20 VI 72-5															
	BB Mx-172					E/MW	B	2970	320	320	SC	PE	469	MW	SIUDA	
	20 V 72-7															
	BB Mx-173					A	F	3080	320	320	SC	PE	469	MW	SIUDA	
	20 V 72-8															
	BB Mx-174					E/MW	B	2900	320	320	SC	PE	469	MW	SIUDA	
	20 VI 72-9															
	BB Mx-175															
	20 V 72-10															

Appendix C (continued)

SIUM#	Site Number		UC#	IAS#	Type	Periods	Culture	Meters Size		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	SIUDA#	M ² in 100's														
24CA-38	[BB Mx-178	[27 V 72-3	Mx-49		V			2620	320		SC	ID	469	MW	SIUDA	
	[BB Mx-180	[21 VI 72-10				M	K	3360	395		SC	ID			IAS	
	[BB Mx-182	[21 VI 72-14						4280	325		SC	PE	469	MW	SIUDA	
	[BB Mx-131	[29 VI 71-1						2700	325		SC	PE	426	DS	SIUDA	
	[BB Mx-109							2600	340		SC	ID	426	DS	SIUDA	
	[BB Mx-187	[26 VI 72-12					L,K	1650	350		CSC,E	PE	131	POF	IAS,SIUM	
	[BB Mx-154	[29 IV 72-1					F,B	1900	330		SC	PE	469	MW	SIUDA	
	[BB Mx-155	[29 VI 72-3					F	2410	340		SC	E	461	POF	SIUDA	
	[BB Mx-156	[29 VI 72-5					F,B	2750	340		SC	E	462	POF	SIUDA	
	[BB Mx-157	[29 IV 72-6					B	3000	340		SC	PE	462	POF	SIUDA	
[BB Mx-158	[29 IV 72-8					B	3050	350		SC	PE	462	POF	SIUDA		
[BB Mx-159	[29 IV 72-9					L,M	3210	350		SC	PE	462	POF	SIUDA		
[BB Mx-160	[29 IV 72-10					L,K	3150	345		SC	ID	462	POF	SIUDA		
[BB Mx-161	[29 IV 72-11						2850	345		SC	ID	461	POF	SIUDA		
[BB Mx-162	[29 IV 72-12					L,K	3100	345		SC	PE	462	POF	SIUDA		
[BB Mx-163	[29 IV 72-13					F	3050	345		SC	PE	462	POF	SIUDA		
[BB Mx-164	[29 IV 72-14					A	2800	345		SC	ID	462	POF	SIUDA		
[BB Mx-165	[29 IV 72-15					M	3050	348		SC	PE	462	MW	SIUDA		
[BB Mx-166	[6 V 72-1					LW	3110	348		SC	PE	461	POF	SIUDA		
[BB Mx-167	[6 V 72-2					E/MW,LW,M	3400	348		SC	E	461	POF	SIUDA		
[BB Mx-38						A, E/MW	3610	350		SC	PE	956	POF	IAS,SIUDA		
[BB Mx-39						F, B		325		SC	ID	462	POF	IAS		

Appendix C (continued)

SIUM#	SIUDA#	Site Number	IC#	IAS#	Type	Periods	Culture	Meters		Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
								From Bank	Size in 100's							
		BB Mx-101														
		IV 71			A	F			325			SC	PE	462	POF	SIUDA
		BB Mx-102														
		24 V 69			A	F	3,400		325			SC	PE	462	POF	SIUDA
		RR Mx-191														
		27 VI 72-1					2490		330			SC	ID	469	MW	SIUDA
		BB Mx-105			C		2050		330			SC	ID	469	MW	SIUDA
					V	E/MW	2000		330	1.6		E	E	469	MA	SIUDA
		BB Mx-133														
		29 VI 71-3			V	K	1300	40	325			SC	PE	597	GBF	SIUDA
		BB Mx-134														
		29 VI 71-4					1450		320			SC	ID	597	OPF	SIUDA
		BB Mx-135														
		29 VI 71-6			V	K	1350	40	320			SC	PE	597	GBF	SIUDA

River Miles 938-942: no other sites recorded in this section.

River Miles 943-947: no other sites recorded in this section.

River Miles 948-952: no other sites recorded in this section.

River Miles 953-957: no other sites recorded in this section.

River Miles 958-962:

25C3-04

C A

River Miles 963-967: no other sites recorded in this section.

River Miles 968-972: no other sites recorded in this section.

River Miles 973-977:

24D4-08

Ax-32 V M

River Miles 978-982: no other sites recorded in this section.